

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: November 12, 2003, 22:39:25 ; Search time 686 Seconds
(without alignments)
10722.986 Million cell updates/sec

Title: US-10-054-678-1

Perfect score: 2725

Sequence: 1 tcagtcgtggccagctg.....aagtcacacttgggtggc 2725

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 2552756 seqs, 1349719017 residues

Total number of hits satisfying chosen parameters: 5105512

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 120 summaries

Database : N_Geneseq_19Jun03.*

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23: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA2001B.DAT.*
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25: /SIDSI/gcgdata/geneseq/geneseq-emb1/NA2003.DAT.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length DB | ID | Description |
|------------|--------|-------------|-----------|----|--------------------|
| 1 | 2725 | 100.0 | 2725 | 24 | Human dopamine bet |
| 2 | 1807.2 | 66.3 | 1812 | 24 | Human DBH cDNA. H |
| 3 | 1805.6 | 66.3 | 1812 | 24 | Human DBH variant |
| 4 | 1805.6 | 66.3 | 1812 | 24 | Human DBH variant |
| 5 | 1805.6 | 66.3 | 1812 | 24 | Human DBH variant |
| 6 | 1398 | 51.3 | 5540 | 18 | IGSP-hpOMCdelACTH- |
| 7 | 1393.4 | 51.1 | 3425 | 18 | rTHdel-IRES-bDBH D |
| 8 | 1393.4 | 51.1 | 3432 | 18 | rTHdelKS-IRES-bDBH |

IGSP-hpOMCdelACTH-
Human DBH genomic
Human immune/haema
Single nucleotide
Human immune/haema
Drosophila melanog
Human immune syste
Human chemically t
Human immune syste
Human chemically t
Single nucleotide
Single nucleotide
Single nucleotide
Human cDNA sequenc
cDNA encoding huma
Human cDNA encodin
DNA encoding novel
Human drug metabol
GC6 gene ORF seque
Restriction fragme
Human full-length
DNA sequence of GC
Human secreted pro
Human secreted pro
Human polynucleoti
Drosophila melanog
Single nucleotide
Single nucleotide
GS-GC6 fusion prot
Human polynucleoti
Drosophila melanog
Single nucleotide
Human spliced tran
Cr-449-tandem-acti
Human GTP-binding
Human SNP oligonuc
Human cDNA 5'-end
Human cDNA clone r
Streptomyces nous
Streptomyces nous
Drosophila melanog
Human cDNA #251 di
Zea mays DNA fragm
Human reproductive
Human reproductive
snac gene encoding
Sequence comprisin
Ancestral HIV-1 gr
Semi-optimised anc
Bifidobacterium lo
HIV gp120 coding r
HIV gp140 coding r
HIV gp160 coding r
HIV gp160 and aig
HIV-1 envelope pol
Synthetic Env poly
HIV-1 subtype (C/B
Hordeum vulgare va
Trichoderma reesei
Chrysosporium CBH1
Expression vector
Modified HIV prote
Modified HIV prote
Modified HIV prote
Human TRICH encodi
Soluble chitinase
Vibrio furnissii c
P. putida KT2440-a
Human cDNA sequenc
Human mdt cDNA SE

QY 121 AGAGCCCTCCCTATCATCTCCCTCGGACCCGGAGGGTCCCTCGAGCTCTCATGGA 180
DB 121 AGAGCCCTCCCTATCATCTCCCTCGGACCCGGAGGGTCCCTCGAGCTCTCATGGA 180
QY 181 ATGTGAGCTACACCCAGAGGCGCATCTTCATTTCCAGCTCTGTGTGGAGGCTCAAGGCTG 240
DB 181 ATGTGAGCTACACCCAGAGGCGCATCTTCATTTCCAGCTCTGTGTGGAGGCTCAAGGCTG 240
QY 241 GCGTCTCTGTTGGGATGTCCGACCGTGGCGAGCTTGGAGACGACATCTCGTGTGCTCT 300
DB 241 GCGTCTCTGTTGGGATGTCCGACCGTGGCGAGCTTGGAGACGACATCTCGTGTGCTCT 300
QY 301 GGACCGATGGGACACTGCTCTATTTTGGGAGCCCTGGAGTGAACAGAGGGGACAGATCC 360
DB 301 GGACCGATGGGACACTGCTCTATTTTGGGAGCCCTGGAGTGAACAGAGGGGACAGATCC 360
QY 361 ACCTGGATCCCGCAGCAGGACTACCACTGCTGTCAGGTGCAGAGGACCCAGAGGCGCTGA 420
DB 361 ACCTGGATCCCGCAGCAGGACTACCACTGCTGTCAGGTGCAGAGGACCCAGAGGCGCTGA 420
QY 421 CCTGCTCTTTCAAGAGGCGCTTTGGCACCTTGGCACCTTGGCACCTTGGAGACG 480
DB 421 CCTGCTCTTTCAAGAGGCGCTTTGGCACCTTGGCACCTTGGAGACG 480
QY 481 GCATGCTCACTTGTGCTACGGGATCTCTGGAGGAGCCGTTCCGGTCACTGGAGGCGATCA 540
DB 481 GCATGCTCACTTGTGCTACGGGATCTCTGGAGGAGCCGTTCCGGTCACTGGAGGCGATCA 540
QY 541 ACGGCTCGGGCTGCAGATGGGCTGCAGAGGCTGCAGCTCTGAGGCCCAATATCCCGG 600
DB 541 ACGGCTCGGGCTGCAGATGGGCTGCAGAGGCTGCAGCTCTGAGGCCCAATATCCCGG 600
QY 601 AACCGGAGTGGCTTCAGACGCGTGCACCATGGAGGTCCTCAAGCTCCCAATATCCAGATCC 660
DB 601 AACCGGAGTGGCTTCAGACGCGTGCACCATGGAGGTCCTCAAGCTCCCAATATCCAGATCC 660
QY 661 CCAGCCAGGAGACCACTGCTGCTGCTACATTAAGAGGCTTCCAAAGGGCTTCTCTGGC 720
DB 661 CCAGCCAGGAGACCACTGCTGCTGCTACATTAAGAGGCTTCCAAAGGGCTTCTCTGGC 720
QY 721 ACCCATATCAAGTACAGGCCCATCTGTCACCAAGGGCAATGAGGCCCTTGTCCACCA 780
DB 721 ACCCATATCAAGTACAGGCCCATCTGTCACCAAGGGCAATGAGGCCCTTGTCCACCA 780
QY 781 TGGAGTCTTCCAGTGGCCCCCGAGATGGACAGCGTCCCCCACTTACGCGGGCCCTGGC 840
DB 781 TGGAGTCTTCCAGTGGCCCCCGAGATGGACAGCGTCCCCCACTTACGCGGGCCCTGGC 840
QY 841 ACTCAAGATGAACCCGACCGCTCAACTACTGCGGACAGTGTGCGGCCCTGGGCC 900
DB 841 ACTCAAGATGAACCCGACCGCTCAACTACTGCGGACAGTGTGCGGCCCTGGGCC 900
QY 901 TGGGTGCCAAGGCATTTTACTACCCAGAGGAGCGGGCTTGCCTTCGGGGGTCCAGGT 960
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DB 961 CCTCAGATATCTCGGCTGGAAGTTCACTACCAACCCCACTGCTGATAGAAGGACGAA 1020
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DB 1021 ACAGCTCCTCAGGATCCGCTTGTACTACAGGCAAGCTGCGGCGCTTCAACCGGGGA 1080
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QY 1141 TCATCTCTCAGTGGCTACTGACAGGACAAAGTGCACCCAGCTGGGCACTGCCTCCCTCCGGA 1200
DB 1141 TCATCTCTCAGTGGCTACTGACAGGACAAAGTGCACCCAGCTGGGCACTGCCTCCCTCCGGA 1200
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DB 1201 TCCACATCTTCGCTCTCAGCTCCACACACCTGACTGGGAGAAAGGTGGTCAAGTGC 1260
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DB 1261 TGGTCCGGAGCGGGAGTGGGAGATCGTGAACAGGACAACTACAGCCCTCACT 1320
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DB 1381 CCTCTGCACTGAACAACAGGAGACCGGGAGCTGGCCACAGTGGGGGCTTCGGGATCC 1440
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DB 1441 TGGAGGAGATGTGTCTCAACTACGTGCACTACTACCCCGAGAGCTGGAGCTCTGCA 1500
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DB 1501 AGACGGCTGTGGACCGCGCTTCTCTGCAAGAGTACTTCCACTCATCAAGGTTCAACA 1560
QY 1561 ACAGGAGTGTCTGCACTGCTGCTCAGGCTCCGTGTCTAGCAGTTCACCTCTGTTCCT 1620
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DB 1621 GGAATCTCTTCAACCGGACGCTACTGAAGGCCCTGTACAGCTTCGCGGCCATCTCCATGC 1680
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DB 1741 AGGTCTCTCCACTGGAAGAGCCACCCACAGTGCCTCCACAGCAGGCGCGAAGGCC 1800
QY 1801 CTGCTGGCCCCCAGTGTTCAGCATTTGGTGGGGCAAGGCTGAGGGGACCTACTCTCT 1860
DB 1801 CTGCTGGCCCCCAGTGTTCAGCATTTGGTGGGGCAAGGCTGAGGGGACCTACTCTCT 1860
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DB 1861 CCCCCTCTCATGCTCTCCTGTGGCTCACACCGGCACTGTGCACTCTACTCTGGAC 1920
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DB 2221 AATCACCGGAAACCGCCCGCCCGCTGCTCCCGGTGTCAGGCGGGGTGG 2280
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DB 2281 CCGCTTAAACATTTCCCTGCTGAGTGGCTGCTTTTCCAGAGTGGGGCGGCTTCCCTCGGAC 2340

Db 2281 CGCTTAAACATTTCCCTGCTGAGTGGCTCGTGTTCACAGTGGGGCTTCCTCGGAC 2340
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Db 2521 AGCACAGCTTGTCTCTGCGGTCAGCGGTCGACAGCGGGTGGAGTCAGG 2580
QY 2581 GCTGTGCTTTCCGGTGGTTCGCCACTTAGGAGTGTGCTTGGGCGGCGCAATTCACA 2640
Db 2581 GCTGTGCTTTCCGGTGGTTCGCCACTTAGGAGTGTGCTTGGGCGGCGCAATTCACA 2640
QY 2641 TTCCTGACCTCACTTTTCTCATCTCTAAACCGGCTGATCGCTGGGGCTAATGAGC 2700
Db 2641 TTCCTGACCTCACTTTTCTCATCTCTAAACCGGCTGATCGCTGGGGCTAATGAGC 2700
QY 2701 CAATAAGCTCACACTTGGGCTGGC 2725
Db 2701 CAATAAGCTCACACTTGGGCTGGC 2725

RESULT 2

AAD46711
ID AAD46711 standard; cDNA; 1812 BP.
XX AAD46711;
AC AAD46711;
DT 27-JAN-2003 (first entry)
DE Human DBH cDNA.
KW Human; dopamine beta-hydroxylase; DBH; chronic activation; miscarriage;
KW Congestive heart failure; still birth; foetal death; neonatal death;
KW dementia; bipolar disorder; noradrenergic disease; attention deficit;
KW depression; schizophrenia; hyperactivity disorder; cardiac; ss.
OS Homo sapiens.
FH Key
FT CDS Location/Qualifiers
FT 1..1812
FT /*tag= a
FT /product= "Human DBH protein"
XX
PN WO200272006-A2.
XX
PD 19-SEP-2002.
XX
PF 07-MAR-2002; 2002WO-US06893.
XX
PR 07-MAR-2001; 2001US-274095P.
XX
PA (MCLE-) MCLEAN HOSPITAL CORP.
XX
PI Kim K, Kim C, Robertson D;
XX WPI; 2002-723279/78.
DR P-PSDB; AAE29113.
XX
PT Identifying dopamine beta-hydroxylase inhibitor for treating congestive
PT heart failure, by contacting candidate compound with dopamine
PT beta-hydroxylase polypeptide region and detecting binding of compound
PT to the region -
XX

PS Disclosure; Page 62-63; 76pp; English.

XX The present invention relates to a method of determining if a compound
CC is a potentially useful dopamine beta-hydroxylase (DBH) inhibitor. The
CC method involves contacting with a DBH polypeptide region and detecting
CC binding of a compound to the polypeptide or detecting DBH biological
CC activity where binding indicates that compound is a DBH inhibitor. The
CC method is useful for determining whether a compound is a potentially
CC useful DBH inhibitor where the DBH inhibitor is useful for the treatment
CC of a patient with congestive heart failure or chronic activation of
CC sympathetic nerve function or the inhibitor increases dopamine levels.
CC It is useful for determining in a patient with congestive heart failure.
CC It is useful for determining whether a patient has an increased risk of
CC miscarriage, still birth, foetal or neonatal death, dementia, bipolar
CC disorder, noradrenergic disease, depression, schizophrenia or attention
CC deficit/hyperactivity disorder. The method is useful for the development
CC of drugs that specifically inhibit DBH biological activity. The present
CC sequence is human DBH cDNA.

XX
SQ Sequence 1812 BP; 373 A; 600 C; 505 G; 334 T; 0 other;

Query Match 66.3%; Score 1807.2; DB 24; Length 1812;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 1809; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 33 ATGCGGAGGAGCGCTTCATGTACAGCAGCAGAGTGGCCATCTTCTGCTCATCTGCTG 92
Db 1 ATGCGGAGGAGCGCTTCATGTACAGCAGCAGAGTGGCCATCTTCTGCTCATCTGCTG 60
QY 93 GCGGACTGCAGGGCTCGGCTCCCGTGAGAGCCCGCTCCCTCATCATCCCTCGGAC 152
Db 61 GCGGACTGCAGGGCTCGGCTCCCGTGAGAGCCCGCTCCCTCATCATCCCTCGGAC 120
QY 153 CCGGAGGGTCCCTGGAGCTCTCATGGAATGTACAGTACACCCAGGAGGCCATCATTC 212
Db 121 CCGGAGGGTCCCTGGAGCTCTCATGGAATGTACAGTACACCCAGGAGGCCATCATTC 180
QY 213 CAGCTCTCGTGGTGGGAGGCTCAAGGCTGGCGTCTGTTGGGATGTCCGACCGTGGAG 272
Db 181 CAGCTCTCGTGGTGGGAGGCTCAAGGCTGGCGTCTGTTGGGATGTCCGACCGTGGAG 240
QY 273 TTGGAACGAGAGTCTCGTGGTCTGTGACCGCATGGGACATGCTATTTGGCGAC 332
Db 241 TTGGAACGAGAGTCTCGTGGTCTGTGACCGCATGGGACATGCTATTTGGCGAC 300
QY 333 GCCTGGAGTGACAGAGGGGAGATCACTGGATCCCAGCAGGAGTACCAGCTGCTG 392
Db 301 GCCTGGAGTGACAGAGGGGAGATCACTGGATCCCAGCAGGAGTACCAGCTGCTG 360
QY 393 CAGGTGCAGAGGAGCCCGAGAGGCTGACCTGCTTTTCAAGAGGCCCTTTGGCAGCTGC 452
Db 361 CAGGTGCAGAGGAGCCCGAGAGGCTGACCTGCTTTTCAAGAGGCCCTTTGGCAGCTGC 420
QY 453 GACCCCAAGGATTAATCTATTGAAGAGCGGCACTGTCCACTTTGGTCTACGGGATCCCTGGAG 512
Db 421 GACCCCAAGGATTAATCTATTGAAGAGCGGCACTGTCCACTTTGGTCTACGGGATCCCTGGAG 480
QY 513 GAGCGGTTCCGGTCACTGGAGGCCATCAAGGCTCGGGCTTGCAGATGGGGTGCAGAGG 572
Db 481 GAGCGGTTCCGGTCACTGGAGGCCATCAAGGCTCGGGCTTGCAGATGGGGTGCAGAGG 540
QY 573 GTGAGCTCTGGAAGCCCAATATCCCGGAACCGGAGTTGCCCTCAGAGCGGTCACCATG 632
Db 541 GTGAGCTCTGGAAGCCCAATATCCCGGAACCGGAGTTGCCCTCAGAGCGGTCACCATG 600
QY 633 GAGGTCCAAGCTCCCAATATCCAGATCCCGAGCAGGAGACCACTACTGTGCTACATT 692
Db 601 GAGGTCCAAGCTCCCAATATCCAGATCCCGAGCAGGAGACCACTACTGTGCTACATT 660
QY 693 AAGGAGCTTCCAAGGGCTTCTCTCGGACACCACTATCAAGTACAGGCCCATCTGACC 752
Db 661 AAGGAGCTTCCAAGGGCTTCTCTCGGACACCACTATCAAGTACAGGCCCATCTGACC 720

QY 753 AAGGCAATGAGGCGCTTGTCCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGAC 812
Db |
QY 721 AAGGCAATGAGGCGCTTGTCCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGAC 780
Db |
QY 813 AGCGTCCCGCCACTTCAGCGGGGCTCGGACTCCAAAGATGAACCGCGCTCAACTAC 872
Db |
QY 781 AGCGTCCCGCCACTTCAGCGGGGCTCGGACTCCAAAGATGAACCGCGCTCAACTAC 840
Db |
QY 873 TGCGGCCACGTGCTGGCGCCCTGGCGCTCGGAGTGAAGGCAATTTACTACCCAGAGAA 932
Db |
QY 841 TGCGGCCACGTGCTGGCGCCCTGGCGCTCGGAGTGAAGGCAATTTACTACCCAGAGAA 900
QY 933 GCGGCGCTTGGCTTCGGGGGCTCCAGGCTCTCCAGATATCTCCGCTGGAAGTTCACTAC 992
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QY 993 CACAACCCACTGCTGATAGAGAGGAGAAACGACTCTCCAGGATCCGCTTGTACTACACA 1052
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QY 961 CACAACCCACTGCTGATAGAGAGGAGAAACGACTCTCCAGGATCCGCTTGTACTACACA 1020
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Db |
QY 1021 GCCAAGCTGCGGCGCTTCAACGCGGGGATCATGGAGCTGGAGTGGTGTACACGCCAGTG 1080
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Db |
QY 1081 ATGGCCATTCCACACGCGGAGACCGCTTCTATCTCTCACTGGCTACTGACGGAAGAATGC 1140
QY 1173 ACCAAGCTGGCACTGCGCTCCCTCGGGATCCACATCTTCGCTCTCTCACTCCACACAC 1232
Db |
QY 1141 ACCAAGCTGGCACTGCGCTCCCTCGGGATCCACATCTTCGCTCTCTCACTCCACACAC 1200
QY 1233 CTGACTGGGAGAAAGTGGTCAAGTGGTCTCGGAGCGCGGGAGTGGAGATCGTG 1292
Db |
QY 1201 CTGACTGGGAGAAAGTGGTCAAGTGGTCTCGGAGCGCGGGAGTGGAGATCGTG 1260
QY 1293 AACGAGCAATCACTACAGCCCTCACTTCAGGAGATCCGATGTTGAAGAGTCTGT 1352
Db |
QY 1261 AACGAGCAATCACTACAGCCCTCACTTCAGGAGATCCGATGTTGAAGAGTCTGT 1320
QY 1353 TCGGTCCATCGGGAGATGCTCATCACTCCCTCGGATCAACACGGAAGCGGGAG 1412
Db |
QY 1321 TCGGTCCATCGGGAGATGCTCATCACTCCCTCGGATCAACACGGAAGCGGGAG 1380
QY 1413 CTGCGCACAGTGGGGGCTTCGGGATCTCGGAGGAGTGTGTCAACTACGTTGCATAC 1472
Db |
QY 1381 CTGCGCACAGTGGGGGCTTCGGGATCTCGGAGGAGTGTGTCAACTACGTTGCATAC 1440
QY 1473 TACCCCGACGCGAGCTGAGCTCTGCAAGCGGCTGTGGACGCGCGGCTTCTTCAGAA 1532
Db |
QY 1441 TACCCCGACGCGAGCTGAGCTCTGCAAGCGGCTGTGGACGCGCGGCTTCTTCAGAA 1500
QY 1533 TACTTCCACCTCATCAAGCTTCAACAGAGATGTCTGACCTGCGCTCAGCGCTCC 1592
Db |
QY 1501 TACTTCCACCTCATCAAGCTTCAACAGAGATGTCTGACCTGCGCTCAGCGCTCC 1560
QY 1593 GTGTCTCAGCAGTTCACCTCTGTTCCTCGGAACTCTTCAACCGCGAGTACTGAAGGCC 1652
Db |
QY 1561 GTGTCTCAGCAGTTCACCTCTGTTCCTCGGAACTCTTCAACCGCGAGTACTGAAGGCC 1620
QY 1653 CTGTACAGCTTTCGGGCCCATCTCCATGCACTGCAACAGTCTCTCAGCGCTCCGCTTCCAG 1712
Db |
QY 1621 CTGTACAGCTTTCGGGCCCATCTCCATGCACTGCAACAGTCTCTCAGCGCTCCGCTTCCAG 1680
QY 1713 GGTGAATGGAACCTGCAAGCCCTCGCCAGGATCTTCCACACTGGAAGGCCACCCCA 1772
Db |
QY 1681 GGTGAATGGAACCTGCAAGCCCTCGCCAGGATCTTCCACACTGGAAGGCCACCCCA 1740
QY 1773 CAGTGGCCCAACGAGCGGGCGGAGCCCTCTGCGCCCACTGTTGTGAGCATTTGGTGGG 1832
Db |
QY 1741 CAGTGGCCCAACGAGCGGGCGGAGCCCTCTGCGCCCACTGTTGTGAGCATTTGGTGGG 1800
QY 1833 GGCAAGGCTGA 1844

Db 1801 GGCAAGGCTGA 1812

RESULT 3
AAD46714

ID AAD46714 standard; cDNA; 1812 BP.

XX AC AAD46714;

DT 27-JAN-2003 (first entry)

XX Human DBH variant cDNA (G959A).

Human; dopamine beta-hydroxylase; DBH; chronic activation; miscarriage;
congestive heart failure; still birth; foetal death; neonatal death;
dementia; bipolar disorder; noradrenergic disease; attention deficit;
depression; schizophrenia; hyperactivity disorder; cardiant; variant;
mutant; ss.

XX Homo sapiens.

XX OS Location/Qualifiers

FH Key 1..1812

FT CDS /*tag= a

FT mutation /product= "Human DBH variant protein (V87M)"

FT replace (259, G)

FT /*tag= b

XX WO200272006-A2.

XX 19-SEP-2002.

XX 07-MAR-2002; 2002WO-US06893.

XX 07-MAR-2001; 2001US-274095P.

XX (MCLE-) MCLEAN HOSPITAL CORP.

XX Kim K, Kim C, Robertson D;

XX WPI; 2002-723279/78.

XX P-PSDB; AAE29139.

Identifying dopamine beta-hydroxylase inhibitor for treating congestive
heart failure, by contacting candidate compound with dopamine
beta-hydroxylase polypeptide region and detecting binding of compound
to the region -

XX Disclosure; Page -; 76pp; English.

The present invention relates to a method of determining if a compound
is a potentially useful dopamine beta-hydroxylase (DBH) inhibitor. The
method involves contacting with a DBH polypeptide region and detecting
binding of a compound to the polypeptide or detecting DBH biological
activity where binding indicates that compound is a DBH inhibitor. The
method is useful for determining whether a compound is a potentially
useful DBH inhibitor where the DBH inhibitor is useful for the treatment
of a patient with congestive heart failure or chronic activation of
sympathetic nerve function or the inhibitor increases dopamine levels
that benefits renal function in a patient with congestive heart failure.
It is useful for determining whether a patient has an increased risk of
miscarriage, still birth, foetal or neonatal death, dementia, bipolar
disorder, noradrenergic disease, depression, schizophrenia or attention
deficit/hyperactivity disorder. The method is useful for the development
of drugs that specifically inhibit DBH biological activity. The present
sequence is human DBH variant cDNA.Note: This sequence is not shown in the specification but is derived
from wild-type DBH cDNA shown as SEQ ID NO: 36 in pages 62-63 of the
specification (AAD46711).

XX Sequence 1812 BP; 374 A; 600 C; 504 G; 334 T; 0 other;

| | | | |
|----------------------------|---|---|------|
| Query Match | | 66.3%; Score 1805.6; DB 24; Length 1812; | |
| Best Local Similarity | | 99.8%; Pred. No. 0; | |
| Matches 1808; Conservative | | 0; Mismatches 4; Indels 0; Gaps 0; | |
| QY | 33 | ATGCGGAGGAGCCTTTCATGTACAGACAGCAGTGGCCATCTTCTCTGGTTCATCCNGTG | 92 |
| DB | 1 | ATGCGGAGGAGCCTTTCATGTACAGACAGCAGTGGCCATCTTCTGGTTCATCCNGTG | 60 |
| QY | 93 | GCCGCACTGAGGGCTCGGCTCCCGTGGAGAGCCCTCCCTATCACATCCCTCGGAC | 152 |
| DB | 61 | GCCGCACTGAGGGCTCGGCTCCCGTGGAGAGCCCTCCCTATCACATCCCTCGGAC | 120 |
| QY | 153 | CCGAGGGGTCCTTGGAGCTCTCATGGAATGTGAGCTACACCGAGAGGCGATTCATTTC | 212 |
| DB | 121 | CCGAGGGGTCCTTGGAGCTCTCATGGAATGTGAGCTACACCGAGAGGCGATTCATTTC | 180 |
| QY | 213 | CAGCTCTGTGGGAGGCTCAAGGCTGGGCTCTGTTTGGGATGTCCAGCGTGGCGAG | 272 |
| DB | 181 | CAGCTCTGTGGGAGGCTCAAGGCTGGGCTCTGTTTGGGATGTCCAGCGTGGCGAG | 240 |
| QY | 273 | CTTGAGAACGAGATCTCTGTGGTGTCTGACCGATGGGACACTGCCTATTTTCGGAC | 332 |
| DB | 241 | CTTGAGAACGAGATCTCTGTGGTGTCTGACCGATGGGACACTGCCTATTTTCGGAC | 300 |
| QY | 333 | GCTTGAGTGAACAGAGGGGAGATCCACCTGGATCCCGAGCAGACTACAGCTGCTG | 392 |
| DB | 301 | GCTTGAGTGAACAGAGGGGAGATCCACCTGGATCCCGAGCAGACTACAGCTGCTG | 360 |
| QY | 393 | CAGGTCCAGAGACCCAGAGGCTGACCTGCTTTTCAGAGGCCCTTTGGCACTGTC | 452 |
| DB | 361 | CAGGTCCAGAGACCCAGAGGCTGACCTGCTTTTCAGAGGCCCTTTGGCACTGTC | 420 |
| QY | 453 | GACCCCAAGGATTAACCTCATTAAGACGGCACTGTCCACTTGGTCTACGGGATCCTGGAG | 512 |
| DB | 421 | GACCCCAAGGATTAACCTCATTAAGACGGCACTGTCCACTTGGTCTACGGGATCCTGGAG | 480 |
| QY | 513 | GAGCGTTCGGTCACTGAGGCCATCAAGGCTCGGCTCGAGATGGGCTGCAGAGG | 572 |
| DB | 481 | GAGCGTTCGGTCACTGAGGCCATCAAGGCTCGGCTCGAGATGGGCTGCAGAGG | 540 |
| QY | 573 | GTGAGCTCTGAAGCCCAATATCCCGAACCGGATTTGCCCTCAGACGGTGCACCATG | 632 |
| DB | 541 | GTGAGCTCTGAAGCCCAATATCCCGAACCGGATTTGCCCTCAGACGGTGCACCATG | 600 |
| QY | 633 | GAGGTCCAGAGTCCCAATATCAGATCCCGAGCAGGACCAAGTACTGTTGCTACAT | 692 |
| DB | 601 | GAGGTCCAGAGTCCCAATATCAGATCCCGAGCAGGACCAAGTACTGTTGCTACAT | 660 |
| QY | 693 | AAGGAGCTTCCAAAGGGCTTCTCTCGGCACCCATATCAAGTACGAGCCCATCGTACC | 752 |
| DB | 661 | AAGGAGCTTCCAAAGGGCTTCTCTCGGCACCCATATCAAGTACGAGCCCATCGTACC | 720 |
| QY | 753 | AAGGCAATGAGGCCCTTGTCCACCATGGAAGTCTTCCAGTCCGCCGCCGAGATGGAC | 812 |
| DB | 721 | AAGGCAATGAGGCCCTTGTCCACCATGGAAGTCTTCCAGTCCGCCGCCGAGATGGAC | 780 |
| QY | 813 | AGCGTCCCGCACTTTCAGCGGCTCGCATCCAGATGAACCCGACCGCTCAACTAC | 872 |
| DB | 781 | AGCGTCCCGCACTTTCAGCGGCTCGCATCCAGATGAACCCGACCGCTCAACTAC | 840 |
| QY | 873 | TGCGGCCACGTGTGGCGGCTTGCGGCTCGGTCGCAAGGCATTTTACTACCCAGAGAA | 932 |
| DB | 841 | TGCGGCCACGTGTGGCGGCTTGCGGCTCGGTCGCAAGGCATTTTACTACCCAGAGAA | 900 |
| QY | 933 | GCGGCTTCCGCTTCCGGGGTCCAGGCTCTCCAGATATCTCCGCTGGAAGTCACTAC | 992 |
| DB | 901 | GCGGCTTCCGCTTCCGGGGTCCAGGCTCTCCAGATATCTCCGCTGGAAGTCACTAC | 960 |
| QY | 993 | CACAACCACTGTGTAGAGGACCAAAAGCTCTCTCAGGATCCGCTTGTACTACACA | 1052 |
| DB | 961 | CACAACCACTGTGTAGAGGACCAAAAGCTCTCTCAGGATCCGCTTGTACTACACA | 1020 |
| QY | 1053 | GCCAAGCTGGCGGCTTCAACGCGGGGATCATGGAGCTGGGATGGTGTACACGCCAGTG | 1112 |
| DB | 1021 | GCCAAGCTGGCGGCTTCAACGCGGGGATCATGGAGCTGGGATGGTGTACACGCCAGTG | 1080 |
| QY | 1113 | ATGCGCAATTCACACCGGAGACCGCCTTCATCTCTACTGGTACTGACGGCAAGTGC | 1172 |
| DB | 1081 | ATGCGCAATTCACACCGGAGACCGCCTTCATCTCTACTGGTACTGACGGCAAGTGC | 1140 |
| QY | 1173 | ACCCAGCTGGCACTGCTCCCTCCCGGATCCACATCTTGGCTCTCAGCTCCACACAC | 1232 |
| DB | 1141 | ACCCAGCTGGCACTGCTCCCTCCCGGATCCACATCTTGGCTCTCAGCTCCACACAC | 1200 |
| QY | 1233 | CTGACTGGGAGAAAGTGTGTACAGTGTGTCGCGAGCGCGGAGTGGGAGTCCGTG | 1292 |
| DB | 1201 | CTGACTGGGAGAAAGTGTGTACAGTGTGTCGCGAGCGCGGAGTGGGAGTCCGTG | 1260 |
| QY | 1293 | AACGAGACAACTCACTACAGCCCTCACTTCCAGGAGATCCGATGTTGAAGAGTCCGTG | 1352 |
| DB | 1261 | AACGAGACAACTCACTACAGCCCTCACTTCCAGGAGATCCGATGTTGAAGAGTCCGTG | 1320 |
| QY | 1353 | TCGCTCCATCCGCGAGATGTGCTCATCACTCTCTGACCGTACAAACGAGAACCGGGAG | 1412 |
| DB | 1321 | TCGCTCCATCCGCGAGATGTGCTCATCACTCTCTGACCGTACAAACGAGAACCGGGAG | 1380 |
| QY | 1413 | CTGCGCACAGTGGGGGCTTCGCGATCCCTGAGGAGATGTGTCAACTACCTGCACTAC | 1472 |
| DB | 1381 | CTGCGCACAGTGGGGGCTTCGCGATCCCTGAGGAGATGTGTCAACTACCTGCACTAC | 1440 |
| QY | 1473 | TACCCCCAGACGAGCTGAGCTCTGCAAGACGGCTGTGAGACCGCGCTTCCTGAGAG | 1532 |
| DB | 1441 | TACCCCCAGACGAGCTGAGCTCTGCAAGACGGCTGTGAGACCGCGCTTCCTGAGAG | 1500 |
| QY | 1533 | TACTTCCACTCATCAACAGGTTCAACACAGGAGTGTCTGCACCTGCCCTCAGGCGTCC | 1592 |
| DB | 1501 | TACTTCCACTCATCAACAGGTTCAACACAGGAGTGTCTGCACCTGCCCTCAGGCGTCC | 1560 |
| QY | 1593 | GTGTCTCAGCAGTCACTCTGTTCCCTGGAATCTCTTCAACCGCGACGTACTGAAGGCC | 1652 |
| DB | 1561 | GTGTCTCAGCAGTCACTCTGTTCCCTGGAATCTCTTCAACCGCGACGTACTGAAGGCC | 1620 |
| QY | 1653 | CTGTAGCTTCGCGCCCATCTCCATGCACTGCAACAGTCTCTGACCGCTCCGCTTCAG | 1712 |
| DB | 1621 | CTGTAGCTTCGCGCCCATCTCCATGCACTGCAACAGTCTCTGACCGCTCCGCTTCAG | 1680 |
| QY | 1713 | GSTGAATGGAACCTGACGCCCTTCCATGCACTGCAACAGTCTCTGCAAGAGAGCCCA | 1772 |
| DB | 1681 | GSTGAATGGAACCTGACGCCCTTCCATGCACTGCAACAGTCTCTGCAAGAGAGCCCA | 1740 |
| QY | 1773 | CAGTSCCCCAACAGCCAGGCGGCGAAGCCCTGCTGGCCCGCCAGCTGTCAGCATTTGGTGG | 1832 |
| DB | 1741 | CAGTSCCCCAACAGCCAGGCGGCGAAGCCCTGCTGGCCCGCCAGCTGTCAGCATTTGGTGG | 1800 |
| QY | 1833 | GGCAAGGCTGA 1844 | |
| DB | 1801 | GGCAAGGCTGA 1812 | |
| RESULT 4 | | | |
| AAD46715 | | | |
| ID | AAD46715 standard; cDNA, 1812 BP. | | |
| XX | AAD46715; | | |
| AC | AAD46715; | | |
| XX | 27-JAN-2003 (first entry) | | |
| DT | Human DB variant cDNA (C300A). | | |
| XX | Human, dopamine beta-hydroxylase; DBH; chronic activation; miscarriage; | | |
| DE | congestive heart failure; still birth; foetal death; neonatal death; | | |
| KW | dementia; bipolar disorder; noradrenergic disease; attention deficit; | | |
| KW | depression; schizophrenia; hyperactivity disorder; cardiant; variant; | | |
| XX | mutant; ss. | | |
| OS | Homo sapiens. | | |

| | | | |
|----|--|--|--|
| XX | Key | Location/Qualifiers | |
| FT | CDS | 1..1812 | |
| FT | | /*tag= a | |
| FT | | /product= "Human DBH variant protein (D100E)" | |
| FT | mutation | replace (300, C) | |
| FT | | /*tag= b | |
| XX | | | |
| PN | WO200272006-A2. | | |
| XX | | | |
| PD | 19-SEP-2002. | | |
| XX | | | |
| XX | 07-MAR-2002; 2002WO-US06893. | | |
| PF | | | |
| XX | | | |
| XX | 07-MAR-2001; 2001US-274095P. | | |
| PR | | | |
| XX | (MCLE-) MCLEAN HOSPITAL CORP. | | |
| PA | | | |
| XX | | | |
| XX | Kim K, Kim C, Robertson D; | | |
| PI | | | |
| XX | | | |
| DR | WPI; 2002-723279/78. | | |
| DR | P-PSDB; AAE29140. | | |
| XX | | | |
| XX | Identifying dopamine beta-hydroxylase inhibitor for treating congestive heart failure, by contacting candidate compound with dopamine beta-hydroxylase polypeptide region and detecting binding of compound to the region | | |
| PT | | | |
| PT | | | |
| PT | | | |
| XX | Disclosure; Page -; 76pp; English. | | |
| PS | | | |
| XX | | | |
| XX | The present invention relates to a method of determining if a compound is a potentially useful dopamine beta-hydroxylase (DBH) inhibitor. The method involves contacting with a DBH polypeptide region and detecting binding of a compound to the polypeptide or detecting DBH biological activity where binding indicates that compound is a DBH inhibitor. The method is useful for determining whether a compound is a potentially useful DBH inhibitor where the DBH inhibitor is useful for the treatment of a patient with congestive heart failure or chronic activation of sympathetic nerve function or the inhibitor increases dopamine levels that benefits renal function in a patient with congestive heart failure. It is useful for determining whether a patient has an increased risk of miscarriage, still birth, foetal or neonatal death, dementia, bipolar disorder, noradrenergic disease, depression, schizophrenia or attention deficit/hyperactivity disorder. The method is useful for the development of drugs that specifically inhibit DBH biological activity. The present sequence is human DBH variant cDNA. | | |
| CC | Note: This sequence is not shown in the specification but is derived from wild-type DBH cDNA shown as SEQ ID NO: 36 in pages 62-63 of the specification (AAM46711). | | |
| CC | | | |
| XX | Sequence 1812 BP; 374 A; 599 C; 505 G; 334 T; 0 other; | | |
| SQ | | | |
| | Query Match | 66.3%; Score 1805.6; DB 24; Length 1812; | |
| | Best Local Similarity | 99.8%; Pred. No. 0; | |
| | Matches 1808; Conservative | 0; Mismatches 4; Indels 0; Gaps 0; | |
| Qy | 33 | ATGCGGAGGAGGCGCTTCATGTACAGACAGCAGTGCGGCATCTTCCTGGTTCATCCTGGTG 92 | |
| Db | 1 | ATGCGGAGGAGGCGCTTCATGTACAGACAGCAGTGCGGCATCTTCCTGGTTCATCCTGGTG 60 | |
| Qy | 93 | GCCTGATGAGGCGCTCGGCTCCCGGTGAGAGCCCTCCCTATCATCACCCTGGAC 152 | |
| Db | 61 | GCCTGATGAGGCGCTCGGCTCCCGGTGAGAGCCCTCCCTATCATCACCCTGGAC 120 | |
| Qy | 153 | CCGAGGGGTCCTGGAGCTTCATGGAATGTACAGTACACCCAGGAGGCCATCCATTTC 212 | |
| Db | 121 | CCGAGGGGTCCTGGAGCTTCATGGAATGTACAGTACACCCAGGAGGCCATCCATTTC 180 | |
| Qy | 213 | CAGTCTCTGGTGCGGAGGCTCAAGGCTGGCTCTCTGTTGGGATGTCGACCGTGGCGAG 272 | |
| Db | 181 | CAGTCTCTGGTGCGGAGGCTCAAGGCTGGCTCTCTGTTGGGATGTCGACCGTGGCGAG 240 | |
| Qy | 273 | CTTGAGAACCGAGATCTCGTGGTCTCTGGACCGATGGGACACTGCTATTTTGGCGAC 332 | |

| | | |
|----|------|--|
| Db | 241 | CTTGAGAACCGAGATCTCGTGGTCTCTGGACCGATGGGACACTGCTATTTTGGCGAA 300 |
| Qy | 333 | GCCTGGAGTGACCAAGAGGGGCGAGATCCACCTGGATCCCGAGGAGCTACCGAGTGTGTG 392 |
| Db | 301 | GCCTGGAGTGACCAAGAGGGGCGAGATCCACCTGGATCCCGAGGAGCTACCGAGTGTGTG 360 |
| Qy | 393 | CAGGTGCAGAGGAGCCCGCAGAAAGGCTGACCTCTGCTTTTCAAGAGAGCCCTTTGGGACCTGC 452 |
| Db | 361 | CAGGTGCAGAGGAGCCCGCAGAAAGGCTGACCTCTGCTTTTCAAGAGAGCCCTTTGGGACCTGC 420 |
| Qy | 453 | GACCCCAAGGATTACCTCATTTGAAGACGGCACTGTCTCACTTGGTCTACGGGATCTCTGAG 512 |
| Db | 421 | GACCCCAAGGATTACCTCATTTGAAGACGGCACTGTCTCACTTGGTCTACGGGATCTCTGAG 480 |
| Qy | 513 | GAGCGCTTCCGGTCACTGGAGGCCATCAAGGCTTCGGGCTCGAGATGGGGCTCGAGAGG 572 |
| Db | 481 | GAGCGCTTCCGGTCACTGGAGGCCATCAAGGCTTCGGGCTCGAGATGGGGCTCGAGAGG 540 |
| Qy | 573 | GTGAGCTCTCTGAAGCCCAATATATCCCGAAACCGAGTTGGCCCTCAGAGCGCTGCACCATG 632 |
| Db | 541 | GTGAGCTCTCTGAAGCCCAATATATCCCGAAACCGAGTTGGCCCTCAGAGCGCTGCACCATG 600 |
| Qy | 633 | GAGTCCAAAGCTCCCAATATTCAGATCCCGAGCCAGGAGACCACTACTGTGTGTACATT 692 |
| Db | 601 | GAGTCCAAAGCTCCCAATATTCAGATCCCGAGCCAGGAGACCACTACTGTGTGTACATT 660 |
| Qy | 693 | AAGGAGCTTCCAAAGGGCTTCTCTCGGCACCAATATCAGTACGAGCCCATCGTCACC 752 |
| Db | 661 | AAGGAGCTTCCAAAGGGCTTCTCTCGGCACCAATATCAGTACGAGCCCATCGTCACC 720 |
| Qy | 753 | AAGGGCAATGAGGCGCTTGTCCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGAC 812 |
| Db | 721 | AAGGGCAATGAGGCGCTTGTCCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGAC 780 |
| Qy | 813 | AGCTTCCCGCCTTCAGCGGCGCTCTGCGATCTCAAGATGAAACCCGACCGCTCAACTAC 872 |
| Db | 781 | AGCTTCCCGCCTTCAGCGGCGCTCTGCGATCTCAAGATGAAACCCGACCGCTCAACTAC 840 |
| Qy | 873 | TGCGGCCACGTGTGGCGCGCTTGGCGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGG 932 |
| Db | 841 | TGCGGCCACGTGTGGCGCGCTTGGCGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGGCTGGG 900 |
| Qy | 933 | GCCTGGCTTGGCTTGGGGGTTCAGAGGTCTCTCAGATATCTCCGCTTGGAGTTCACTAC 992 |
| Db | 901 | GCCTGGCTTGGCTTGGGGGTTCAGAGGTCTCTCAGATATCTCCGCTTGGAGTTCACTAC 960 |
| Qy | 993 | CACAAACCACTGTGTATAGAAAGGAGCGAAACGACTCTCTCAGGCACTCCGCTTGTACTACAC 1052 |
| Db | 961 | CACAAACCACTGTGTATAGAAAGGAGCGAAACGACTCTCTCAGGCACTCCGCTTGTACTACAC 1020 |
| Qy | 1053 | GCCAGCTGCGGCGCTTCAACGCGGGGATCATGGAGCTGGGAGTGGTGTACACGCCAGTG 1112 |
| Db | 1021 | GCCAGCTGCGGCGCTTCAACGCGGGGATCATGGAGCTGGGAGTGGTGTACACGCCAGTG 1080 |
| Qy | 1113 | ATGCGCATTCACACACGCGGAGACCGCTTCTCATCTCACTGGTACTCAGCGCAAGTGC 1172 |
| Db | 1081 | ATGCGCATTCACACACGCGGAGACCGCTTCTCATCTCACTGGTACTCAGCGCAAGTGC 1140 |
| Qy | 1173 | ACCCAGCTGCGCATGCTCTCCCTCCGGGATCCACATCTTCGCTCTCAGCTCCACACACAC 1232 |
| Db | 1141 | ACCCAGCTGCGCATGCTCTCCCTCCGGGATCCACATCTTCGCTCTCAGCTCCACACACAC 1200 |
| Qy | 1233 | CTGACTGGGAGAAAGTGGTGCAGTGTCTGGGACCGCGGGAGTGGGAGATCGTG 1292 |
| Db | 1201 | CTGACTGGGAGAAAGTGGTGCAGTGTCTGGGACCGCGGGAGTGGGAGATCGTG 1260 |
| Qy | 1293 | AACAGGACAACTCACTACAGCCCTCACTTCCAGAGATCCGATGTTGGAAGAGTGTGTG 1352 |
| Db | 1261 | AACAGGACAACTCACTACAGCCCTCACTTCCAGAGATCCGATGTTGGAAGAGTGTGTG 1320 |
| Qy | 1353 | TCGGTCCATCCGGGAGATGTGCTCATCACTCTCTGACGCTACAAACGAGAGCCGGAG 1412 |

Db 1321 TCAGTCCATCCGGGAGATGTCTCATCATCTCTGCACTGTAACAACACGGAACCCGGAG 1380
 QY 1413 CTGCCCCACAGTGGGGGCTTCGGGATCCTGGAGGAGATGTGTCAACTACCTGCACTAC 1472
 Db 1381 CTGCCCCACAGTGGGGGCTTCGGGATCCTGGAGGAGATGTGTCAACTACCTGCACTAC 1440
 QY 1473 TACCCCCACAGCAGCTGGAGCTCTGCAAGAGCGCTGTGAGCGCGCTTCTTCGAGAAG 1532
 Db 1441 TACCCCCACAGCAGCTGGAGCTCTGCAAGAGCGCTGTGAGCGCGCTTCTTCGAGAAG 1500
 QY 1533 TACTTCCACTATCAACAGGTTCAACACGAGGATGTCTGACCTGCCCTCAGCGCTCC 1592
 Db 1501 TACTTCCACTATCAACAGGTTCAACACGAGGATGTCTGACCTGCCCTCAGCGCTCC 1560
 QY 1593 GTGTCTCAGCAGTTACCTCTGTTCCTGGAACTCTTCAACCGCGAGTACTGAAGCC 1652
 Db 1561 GTGTCTCAGCAGTTACCTCTGTTCCTGGAACTCTTCAACCGCGAGTACTGAAGCC 1620
 QY 1653 GTGTACAGTTCCGCGCCATCTCCATGCACTGCAACAAGTCTCAGCGCTCCGCTTCCAG 1712
 Db 1621 CTGTACAGTTCCGCGCCATCTCCATGCACTGCAACAAGTCTCAGCGCTCCGCTTCCAG 1680
 QY 1713 GTGTACAGTTCCGCGCCATCTCCATGCACTGCAACAAGTCTCAGCGCTCCGCTTCCAG 1772
 Db 1681 GTGTACAGTTCCGCGCCATCTCCATGCACTGCAACAAGTCTCAGCGCTCCGCTTCCAG 1740
 QY 1773 CAGTGTCCCGCCAGCAGCGCGAGCGCTGTGCGCCCGCCAGGCTCTGCACTGCAACAAGTCTCAGCGCTCCGCTTCCAG 1832
 Db 1741 CAGTGTCCCGCCAGCAGCGCGAGCGCTGTGCGCCCGCCAGGCTCTGCACTGCAACAAGTCTCAGCGCTCCGCTTCCAG 1800
 QY 1833 GCGAAGGCTGA 1844
 Db 1801 GCGAAGGCTGA 1812

RESULT 5

AAD46716
 ID AAD46716 standard; cDNA; 1812 BP.
 AC AAD46716;
 DT 27-JAN-2003 (first entry)
 DE Human DBH variant cDNA (G991A).
 KW Human; dopamine beta-hydroxylase; DBH; chronic activation; miscarriage;
 KW congestive heart failure; still birth; foetal death; neonatal death;
 KW dementia; bipolar disorder; noradrenergic disease; attention deficit;
 KW depression; schizophrenia; hyperactivity disorder; cardiac; variant;
 KW mutant; ss.
 OS Homo sapiens.
 FH Key
 FT CDS
 FT Location/Qualifiers
 FT 1.1812
 FT /*tag= a
 FT /product= "Human DBH variant protein (D100E)"
 FT mutation
 FT replace (991, G)
 FT /*tag= b
 WT WO200272006-A2.
 PD 19-SEP-2002.
 PF 07-MAR-2002; 2002WO-US06893.
 PR 07-MAR-2001; 2001US-274095P.
 PR (MCLE-) MCLEAN HOSPITAL CORP.
 PA Kim K, Kim C, Robertson D;
 PI WPI; 2002-723279/78.
 DR

P-PSDB; AAB29141.
 Identifying dopamine beta-hydroxylase inhibitor for treating congestive heart failure, by contacting candidate compound with dopamine beta-hydroxylase polypeptide region and detecting binding of compound to the region -
 Disclosure; Page -; 76pp; English.
 The present invention relates to a method of determining if a compound is a potentially useful dopamine beta-hydroxylase (DBH) inhibitor. The method involves contacting with a DBH polypeptide region and detecting binding of a compound to the polypeptide or detecting DBH biological activity where binding indicates that compound is a DBH inhibitor. The method is useful for determining whether a compound is a potentially useful DBH inhibitor where the DBH inhibitor is useful for the treatment of a patient with congestive heart failure or chronic activation of sympathetic nerve function or the inhibitor increases dopamine levels that benefits renal function in a patient with congestive heart failure. It is useful for determining whether a patient has an increased risk of miscarriage, still birth, foetal or neonatal death, dementia, bipolar disorder, noradrenergic disease, depression, schizophrenia or attention deficit/hyperactivity disorder. The method is useful for the development of drugs that specifically inhibit DBH biological activity. The present sequence is human DBH variant cDNA.
 Note: This sequence is not shown in the specification but is derived from wild-type DBH cDNA shown as SEQ ID NO: 36 in pages 62-63 of the specification (AAB46711).
 SQ Sequence 1812 BP; 374 A; 600 C; 504 G; 334 T; 0 other;

Query Match 66.3%; Score 1805.6; DB 24; Length 1812;
 Best Local Similarity 99.8%; Pred. No. 0;
 Matches 1808; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
 QY 33 ATGCGGGAGGAGCCCTTATGTACAGCAGCAGTGGCCATCTTCTGTGTATCTGGTG 92
 Db 1 ATGCGGGAGGAGCCCTTATGTACAGCAGCAGTGGCCATCTTCTGTGTATCTGGTG 60
 QY 93 GCGGCACTGAGGGCTCGGCTCCCGTGAGAGCCCTTCCCTATCATATCCCTCTGGAC 152
 Db 61 GCGGCACTGAGGGCTCGGCTCCCGTGAGAGCCCTTCCCTATCATATCCCTCTGGAC 120
 QY 153 CCGGAGGGCTCCCTGGAGCTCTCATGATGTACAGTACACCCAGAGGCGCATTCATTTTC 212
 Db 121 CCGGAGGGCTCCCTGGAGCTCTCATGATGTACAGTACACCCAGAGGCGCATTCATTTTC 180
 QY 213 CAGCTCTCTGGTGGGAGGCTCAAGGCTGGCGTCTGTTGGATGTCCGACCGTGGCGAG 272
 Db 181 CAGCTCTCTGGTGGGAGGCTCAAGGCTGGCGTCTGTTGGATGTCCGACCGTGGCGAG 240
 QY 273 CTTGAGAACGAGATCTCTGTGTCTCTGGACCGATGGGACATGCTATTTTCGGAG 332
 Db 241 CTTGAGAACGAGATCTCTGTGTCTCTGGACCGATGGGACATGCTATTTTCGGAG 300
 QY 333 GCCTGAGTGACCAAGAGGGGAGATCCACCTGGATCCCGAGGAGTACAGTGTCTG 392
 Db 301 GCCTGAGTGACCAAGAGGGGAGATCCACCTGGATCCCGAGGAGTACAGTGTCTG 360
 QY 393 CAGGTGCAGAGGAGCCCGAGAGGCTGACCTCTGCTTTTCAAGAGGCGCTTTGGACCTGC 452
 Db 361 CAGGTGCAGAGGAGCCCGAGAGGCTGACCTCTGCTTTTCAAGAGGCGCTTTGGACCTGC 420
 QY 453 GACCCCAAGGATTAACCTCAATTGAAGAGCGGCACTGCTTCTGCTTACGGATCTGTGAG 512
 Db 421 GACCCCAAGGATTAACCTCAATTGAAGAGCGGCACTGCTTCTGCTTACGGATCTGTGAG 480
 QY 513 GAGCGTTCCGGTCACTGGAGGCGCATCAACGGCTCGGCGCTGAGATGGGGCTGCAGAGG 572
 Db 481 GAGCGTTCCGGTCACTGGAGGCGCATCAACGGCTCGGCGCTGAGATGGGGCTGCAGAGG 540
 QY 573 GTGAGCTCTTGAAGCCCAATATCCCGAACCAGGATGCTCCCTCAGACGGGTGCACCATG 632

Db 541 GTGAGCTCTGTAAGCCCAATATCCCGAACCGGAGTTGCCCTCAGACGCGTGCAACATG 600
Qy 633 GAGGTCCAAAGCTCCCAATATCAGATATCCCGACGAGGAGACCACTACTGTGTCTACATT 692
Db 601 GAGGTCCAAAGCTCCCAATATCAGATATCCCGACGAGGAGACCACTACTGTGTCTACATT 660
Qy 693 AAGGAGCTTCCAAAGGGCTTCTCTCGGCACACATTTCAAGTACGAGCCCATCGTCAAC 752
Db 661 AAGGAGCTTCCAAAGGGCTTCTCTCGGCACACATTTCAAGTACGAGCCCATCGTCAAC 720
Qy 753 AAGGCAATAGGCGCTTGTCCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGAC 812
Db 721 AAGGCAATAGGCGCTTGTCCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGAC 780
Qy 813 AGCGTCCCCCACTTCAAGCGGGCTTCGACATCCCAAGATGAACCCGACCGCTCAACTAC 872
Db 781 AGCGTCCCCCACTTCAAGCGGGCTTCGACATCCCAAGATGAACCCGACCGCTCAACTAC 840
Qy 873 TGCCGCCACAGTGTGCGCGCTTGGCGCTTGGGTGCGCAAGGCAATTTTACTACCCAGAGAA 932
Db 841 TGCCGCCACAGTGTGCGCGCTTGGCGCTTGGGTGCGCAAGGCAATTTTACTACCCAGAGAA 900
Qy 933 GCGGCGCTTGCCTTCGCGGGCTCCAGGGTCTCCAGATATCTCCGCTCGGAAGTTCACCTAC 992
Db 901 GCGGCGCTTGCCTTCGCGGGCTCCAGGGTCTCCAGATATCTCCGCTCGGAAGTTCACCTAC 960
Qy 993 CACAACCACTGGTGATAGAGGAGCAAAACGACTCTCAGGCGATCCGCTTGTACTACACA 1052
Db 961 CACAACCACTGGTGATAGAGGAGCAAAACGACTCTCAGGCGATCCGCTTGTACTACACA 1020
Qy 1053 GCCAAGCTGCGCGCTTCAACCGGGGATCATGGAGCTGGGACTGGTGTACACGCCAGTG 1112
Db 1021 GCCAAGCTGCGCGCTTCAACCGGGGATCATGGAGCTGGGACTGGTGTACACGCCAGTG 1080
Qy 1113 ATGGCCATTCCACACGAGGAGCGCCCTTCACTCAGTGGCTACTGACCGACAGTGC 1172
Db 1081 ATGGCCATTCCACACGAGGAGCGCCCTTCACTCAGTGGCTACTGACCGACAGTGC 1140
Qy 1173 ACCAGCTGGCACTGCTCTCCCTCCGGGATCCACATCTTCGCTCTCAGCTCCACACACAC 1232
Db 1141 ACCAGCTGGCACTGCTCTCCCTCCGGGATCCACATCTTCGCTCTCAGCTCCACACACAC 1200
Qy 1233 CTGACTGGGAGAAAGGTGGTCAAGTGTGTGTCGGGACCGCCGGAGTGGGAGATCGTG 1292
Db 1201 CTGACTGGGAGAAAGGTGGTCAAGTGTGTGTCGGGACCGCCGGAGTGGGAGATCGTG 1260
Qy 1293 AACCAGGACATCACTACAGCCCTCACTTCAGGAGATCCGCATGTTGAAGAAAGTGTG 1352
Db 1261 AACCAGGACATCACTACAGCCCTCACTTCAGGAGATCCGCATGTTGAAGAAAGTGTG 1320
Qy 1353 TCGGTCCATCCGGAGATGTGCTCATCACCTCTCGACGTACAACACGGAAGACCGGAG 1412
Db 1321 TCGGTCCATCCGGAGATGTGCTCATCACCTCTCGACGTACAACACGGAAGACCGGAG 1380
Qy 1413 CTGGCCACAGTGGGGGCTTCGGGATCTGAGGAGATGTGTCAACTACGTGCATCTAC 1472
Db 1381 CTGGCCACAGTGGGGGCTTCGGGATCTGAGGAGATGTGTCAACTACGTGCATCTAC 1440
Qy 1473 TACCCCCAGACGACGTGGAGCTTCGACAGCGCTGTGAGCGCGGCTTCTCGAGAAG 1532
Db 1441 TACCCCCAGACGACGTGGAGCTTCGACAGCGCTGTGAGCGCGGCTTCTCGAGAAG 1500
Qy 1533 TACTTCCACCTCATCAACAGGTTCACAAACAGAGATGTCTGACCTGCGCTCAGCGCTCC 1592
Db 1501 TACTTCCACCTCATCAACAGGTTCACAAACAGAGATGTCTGACCTGCGCTCAGCGCTCC 1560
Qy 1593 GTGTCTCAGCAGTTCACTCTGTTCCTTGGAACTCTTCAACCGGAGCTACTGAAGGCC 1652
Db 1561 GTGTCTCAGCAGTTCACTCTGTTCCTTGGAACTCTTCAACCGGAGCTACTGAAGGCC 1620
Qy 1653 CTGTACAGCTTCGGCGCCCATCTCCATGCACTGCAACAGTCTCAGCGCTCCGCTTCAAG 1712
Db 1621 CTGTACAGCTTCGGCGCCCATCTCCATGCACTGCAACAGTCTCAGCGCTCCGCTTCCAG 1680

Qy 1713 GGTGAATGAACCTGCAGCCCCCTGCCAAGGTCTCTCCACACTGGAAGAGCCACCCCA 1772
Db 1681 GGTGAATGAACCTGCAGCCCCCTGCCAAGGTCTCTCCACACTGGAAGAGCCACCCCA 1740
Qy 1773 CAGTCCCCCACCACGCCAGGCGCGAAGCCCTCTCGCCCCCACCCTGTGTGTCAGCAATTGGTGG 1832
Db 1741 CAGTCCCCCACCACGCCAGGCGCGAAGCCCTCTCGCCCCCACCCTGTGTGTCAGCAATTGGTGG 1800
Qy 1833 GGCAAGGCTGA 1844
Db 1801 GGCAAGGCTGA 1812

RESULT 6
AAT62548
ID AAT62548 standard; DNA; 5540 BP.
XX
AC AAT62548;
XX
DT 07-JUN-1997 (first entry)
XX
DE IGSP-hPOMCdeltaCTH-IRES-rTHdel-IRES-bDBH-IRES-Zeocin-073 DNA.
XX
KW Analgesic; pain; bioartificial organ; pro-opiomelanocotin; POMC;
KW beta-endorphin; tyrosine hydroxylase; dopamine beta-hydroxylase;
KW IGSP-hPOMC-deltaCTH-IRES-rTHdel-IRES-bDBH-Zeocin-073;
KW internal ribosome entry site; ss.
XX
OS Chimeric Homo sapiens;
OS Chimeric picornavirus;
OS Chimeric Rattus sp.;
OS Chimeric Bos taurus.

| Key | Location/Qualifiers |
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| 5'UTR | 1..118 |
| FT | /*tag= a |
| FT | 1..164 |
| FT | /*tag= b |
| FT | /codon_start= 119 |
| FT | intron |
| FT | 165..243 |
| FT | /*tag= c |
| FT | 244..557 |
| FT | /*tag= d |
| FT | 558..1155 |
| FT | /*tag= e |
| FT | 1156..2166 |
| FT | /*tag= f |
| FT | 2167..2766 |
| FT | /*tag= g |
| FT | 2767..4560 |
| FT | /*tag= h |
| FT | 4561..5159 |
| FT | /*tag= i |
| FT | 5160..5540 |
| FT | /*tag= j |
| FT | 5541..5540 |
| FT | /*tag= k |
| XX | |
| PN | WO9640959-A1. |
| XX | |
| PD | 19-DEC-1996. |
| XX | |
| PP | 07-JUN-1996; 96WO-US09629. |
| XX | |
| PR | 07-JUN-1995; 95US-0481917. |
| XX | |
| PA | (CYTO-) CYTOTHERAPEUTICS INC. |
| XX | |
| PI | Saydoff J, Wong S; |
| XX | |
| DR | WPI; 1997-087062/08. |
| XX | |

| | | | |
|----|------|--|------|
| QY | 1070 | CAACGCGGGGATCATGGAGCTGGGACTGGTGATACACGCCAGTGATGGCCATTTCCACCACG | 1129 |
| Db | 2637 | CGACGGGGGCATCATGGAGCTGGGCTGACGCCCTGATGGCCATCCCCCGCA | 2696 |
| QY | 1130 | GGAGACGGCTTCATCCTCACTGGCTACTGACGGACAAGTGCACCCAGCTGGCACTGCC | 1189 |
| Db | 2697 | GGAGACGGCTTCGTCCTCACCGGTACTGCAACGGACAAGTGCACCCAGCTGGCCCTGCC | 2756 |
| QY | 1190 | TCCTTCGGGATCCACATCTTCGGCTCTCAGCTCCACACACACCTGACTGGGAGAAAGT | 1249 |
| Db | 2757 | CGCTTCAGGGATTCACATCTTCGGCTCTCAGCTCCACACGCACTGACCGGCGGAAGT | 2816 |
| QY | 1250 | GGTCAAGTGTGGTCCGGGACGGCGGGAGTGGGAGATCGTGAACCAGGACCAATCACTA | 1309 |
| Db | 2817 | GGTCAAGTGTGGTCCAGGACGGCGGGAGACAGATCGTGAACAGGACCAACCACTA | 2876 |
| QY | 1310 | CAGCCCTCACTTCCAGGAGATCCGATGTTGAAGAAGTCTGTGTCGTCTCTCAGCGGGAGA | 1369 |
| Db | 2877 | CAGCCCACTTCCAGGAGATCGCATGTTGAAGAAGTCTGTGTCGTCTCTCAGCGGGAGA | 2936 |
| QY | 1370 | TGTGTCATCACTCTCTGCAGTACACACGGAGACGGGAGCTGGCCACAGTGGGGGG | 1429 |
| Db | 2937 | CGTGTCTATCACTCTTGCATACACACGGAGACAGGAGCTGGCCACCGTGGGGGG | 2996 |
| QY | 1430 | CTTCGGGATCTTGGAGGAGATGTGTCACTACGTGCACCTACTACCCCCAGACGCGACT | 1489 |
| Db | 2997 | CTTCGGGATCTTGGAGGAGATGTGCGTCAACTATGTGCACTACTACCCCGACGCGACT | 3056 |
| QY | 1490 | GGAGCTCTGCAAGACGGCTGTGGAGCGGGTCTCTGCAAGTACTTCCACTCATCAA | 1549 |
| Db | 3057 | GGAGCTCTGCAAGACGGCTGTGGAGCCCTGGACCTGCTGCAAGTACTTCCGCTCTGTAA | 3116 |
| QY | 1550 | CAGGTTCAACAAACAGGATGTGTCACTGCCCTCAGGCGTCCGTCCTCAGCAGTTAC | 1609 |
| Db | 3117 | CAGGTTCAACACGAGGAAGTCTGCACTGCCCGCCAGGCGTCTGTCTCTCAGCAGTTGC | 3176 |
| QY | 1610 | CTCTGTTCCCTTGGAACTCCTTCAACCGGAGCTACTGAGGGCCCTGTAAGCTTCGCGCC | 1669 |
| Db | 3177 | CTCGTGGCTTGGAACTCTTCAACCGGAGGTGCTCAAGGGCCCTGTACGGCTTCGCAACC | 3236 |
| QY | 1670 | CATCTCATGCACTGCAACAAAGTCTCAGCCGCTCCGCTTCCAGGGTGAATGGAACCTGCA | 1729 |
| Db | 3237 | CATCTCATGCACTGCAACAAAGTCTCAGCCGCTCCGCTTCCAGGGCGAGTGAATCGCA | 3296 |
| QY | 1730 | GCCCTGCCCAAGGTATCTCCACACTGGAGAGCCCAACCCACAGTGGCCCAACGAGCA | 1789 |
| Db | 3297 | GCCCTGCCCTGAGATCGTGTCCAGTGTGAAGAGCCCAACCCCTCACTGCCCGCAGCA | 3356 |
| QY | 1790 | GGGCGGAGCCCTGTGGGCCCAACCGTTGTCAAGCATTTGGTGGGGCAAGGCTGAGGGGG | 1849 |
| Db | 3357 | GGTCTAGAGCCCGCGGCGCCACCGTGTGAACATCAGTGGGGCAAGGCTGACGTG | 3416 |
| QY | 1850 | GAC 1852 | |
| Db | 3417 | GGC 3419 | |

RESULT 8

AAT62536

DD AAT62536 standard; DNA; 3432 BP.

100%

| | |
|----------|--|
| RESULT 8 | |
| AAT62536 | |
| ID | AAT62536 standard; DNA; 3432 BP. |
| XX | |
| XX | |
| AC | AAT62536; |
| XX | |
| XX | |
| DT | 06-JUN-1997 (first entry) |
| XX | |
| DE | rTHdelKS-IRES-bDBH DNA sequence. |
| XX | |
| KW | Analgesic; pain; bioartificial organ; tyrosine hydroxylase; |
| KW | dopamine beta-hydroxylase; internal ribosome entry site; IRES; |
| KW | norepinephrine; catecholamine; rTHdelKS-IRES-bDBH; ss. |
| XX | |
| OS | Chimeric Rattus sp.; |
| OS | Chimeric picornavirus; |

| | | |
|----|--|---------------------|
| OS | Chimeric Bos taurus. | |
| XX | | |
| FH | Key | Location/Qualifiers |
| FT | 5'UTR | 1..13 |
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| FT | | 1..1024 |
| FT | intron | /*tag= b |
| FT | | 1025..1624 |
| FT | exon | /*tag= c |
| FT | | 1625..3432 |
| FT | 3'UTR | /*tag= d |
| FT | | 3419..3432 |
| FT | misc_feature | /*tag= e |
| FT | | 1032..1624 |
| FT | | /*tag= f |
| FT | | /product= IRES |
| XX | | |
| PN | W09640959-A1. | |
| XX | | |
| PD | 19-DEC-1996. | |
| XX | | |
| PF | 07-JUN-1996; | 96WO-US09629. |
| XX | | |
| PR | 07-JUN-1995; | 95US-0481917. |
| XX | | |
| PA | (CYTO-) CYTOTHERAPEUTICS INC. | |
| XX | | |
| PI | Saydoff J, Wong S; | |
| XX | | |
| DR | WPI, 1997-087062/08. | |
| XX | | |
| PT | Stably transformed cells expressing endorphin, enkephalin and catecholamine - and artificial organs contg. them, useful for control of pain, esp. implanted in the CNS | |
| PT | Example; Page 72-75; 114pp; English. | |
| PS | | |
| XX | | |
| CC | 2 DNA constructs (AAT62535 and AAT62536) respectively comprise a truncated rat tyrosine hydroxylase sequence, rTidel (see also AAT62529) or rTHdelKS (see also AAT62530), joined via an IRES sequence to the bovine dopamine beta-hydroxylase gene. Expression of the constructs in transformed RIN or AtT-20 cells complements the host cells' catecholamine synthesising enzymes, allowing prodn. of norepinephrine... Sequential transformation of host cells with diff. vectors, or with a polycistronic vector (see also AAT62543, AAT62548), allows prodn. of cell lines that produce more than one analgesic cpd. Such cell lines can be encapsulated to form bioartificial organs that can be implanted e.g. in the CNS for the control of pain. | |
| CC | | |

| | | |
|----|----------------------------|--|
| SQ | Sequence | 3432 BP; 688 A; 1098 C; 963 G; 683 T; 0 other; |
| | Query Match | 51.1%; Score 1393.4; DB 18; Length 3432; |
| | Best Local Similarity | 85.8%; Pred. No. 3.8e-293; |
| | Matches 1547; Conservative | 0; Mismatches 256; Indels 0; Gaps 0; |
| QY | 50 | CATGTACAGCACAGCAGTGGCCATCTTCCTGTTCACTCGTGTCGCCGACTGCAGGGCTC 109 |
| Db | 1624 | CATGTACGGCACC GGCTGGCCGCTCTCTGGTCACTCTGTGGCTGCACGTGCAGGGGCTC 1683 |
| QY | 110 | GGCTCCCCGGTGAGAGCCCCCTCCCTATCACATATCCCCTTGGACCCGGAGGGGTCCCTCGGA 169 |
| Db | 1684 | GGCTCCCCGGCAGAGCCCCCTCCCTTCACATCCCTCCCTGGACCCCGAGGGGACCTCGGA 1743 |
| QY | 170 | GCTCTCATGGAATGTGAGCTACACCCAGGAGGCCATCCATTTCAGCTCCTGTGGTCGGAG 229 |
| Db | 1744 | GCTGTCTCGAAACATCAGCTATATCGCAGGAGACCATCTCTTCAGCTCCTGTGTCGGGA 1803 |
| QY | 230 | GCTCAAGGCTGGCGTCTCTGTTGGGATGTCGACCGTGGCGAGCTTGAGAACGACAGATCT 289 |
| Db | 1804 | GCTCAAGGCTGGTGTCTCTGTTGGGATGTGGACCGAGGGGAGCTGGAGAATCTGTACTTT 1863 |
| QY | 290 | CGTGGTGCTCTGGACCGATGGGGACACATGCCTATTTTTTCGGACGCCCTGGAGTAGTACACAGAA 349 |

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Db 1864 GGTGGTCTCTGGACTGACAGGGACGGCGCCCTACTTTGGGGATGCTGGAGTGACAGAA 1923
Qy 350 GGGGAGATGCCACCTGGATGCCAGCAGGACTACAGCTGCTGCGAGGTGCGAGGAGACCCC 409
Db 1924 GGGGAGGTGCCACCTGGATGCCAGCAGGATTAACAGCTTCTGCGGGACAGAGACTCC 1983
Qy 410 AGAAGGCTGACCTGCTTTTCAAGAGGCCCTTTGGCACTGCGACCTGCGACCCAAAGGATTACT 469
Db 1984 AGAAGGCTGACCTGCTTTTCAAGAGGCCCTTTGGCACTGCGACCTGCGACCCAAAGGATTACT 2043
Qy 470 CATTGAAGAGCGGACCTGCTTCCACTGCTACCGGATCTGAGGAGCGGTTCCGGTCACT 529
Db 2044 CATTGAAGAGCGGACCTGCTTCCACTGCTGATGATGATTCCTGAGGAGCGGCTCCGGTGGCT 2103
Qy 530 GGAGGCCATCAACGGCTCGGGCTGCAGATGGGGCTGCAGAGGGTGCAGCTCCTGAAGCC 589
Db 2104 GGAGTCCATCAACATCCGGTTCGACACAGGGGTGCAGAGGTGCGAGCTGCTGTAAGCC 2163
Qy 590 CAATATCCCGAACCCGAGTTGCCCTCAGACGCGTGCACCATGGAAGGTCCAAAGTCCCAA 649
Db 2164 CAGCATCCCAAGCGCGGCTGCCCGCGGACACAGCGCACCATGGAGATCCCGCGCCCGA 2223
Qy 650 TATCAGATCCCCAGCCAGGAGACACAGTACTGCTGCTACATTAGGAGCTTCCAAAGG 709
Db 2224 CGTCTCATCCCGGCCAGACACAGTACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 2283
Qy 710 CTCTCTCGGACCACTTATCAAGTACGAGGCCATCGTCAACAGGCAATGAGGCCCT 769
Db 2284 CTCTCGGACCACTTATCAAGTACGAGGCCATCGTCAACAGGCAATGAGGCCCT 2343
Qy 770 TGTCCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGACAGCTGCCCCCACTTCAG 829
Db 2344 GTGCACACATGGAAGTCTTCCAGTGGCGCCCGAGATGGACAGCTGCCCCCACTTCAG 2403
Qy 830 CGGGCCCTGCGACTCCAGATGAACCCGACCGGCTCAACTACTGCCCGCAGTGTGCGC 889
Db 2404 CGGGCCCTGCGACTCCAGATGAACCCGACCGGCTCAACTACTGCCCGCAGTGTGCGC 2463
Qy 890 CGCTTGGGCTTGGGTGCAAGGCAATTTACTACACAGGAAGCGGCTTGGCTCGG 949
Db 2464 CGCTTGGGCTTGGGTGCAAGGCAATTTACTACACAGGAAGCGGCTTGGCTCGG 2523
Qy 950 GGGTCCAGGCTCTCAGATATCTCCGCTCGAAGTTCACTACCAACACCACTGGTGAT 1009
Db 2524 GGGGCGCGCTCTCAGATATCTCCGCTCGAAGTTCACTACCAACACCACTGGTGAT 2583
Qy 1010 AGAAGGACGAACGACTCTCAGGATCGCTTGTACTACAGCAGGCTGCGGCGCTT 1069
Db 2584 AACAGGCGGCGGACTCTCGGCGATCCGCTCTACTACACGCTGCGCTGCGGCGCTT 2643
Qy 1070 CAACGCGGGATCATGGAGCTGGGACTGCTGTACACGCGAGTGATGGCCATTCACACAG 1129
Db 2644 CGACCGGGATCATGGAGCTGGGCTGGGCTGACAGCGCGGTGATGGCCATTCACCGGCA 2703
Qy 1130 GGAGACCGCTTCACTCTCACTGGCTACTGACGGAAGTGCACCCAGCTGGCACTGCC 1189
Db 2704 GGAGAGCGCTTGGTCTCACCGCTACTGACGGAAGTGCACCCAGCTGGCCCTGCC 2763
Qy 1190 TCCCTCCGGGATCCACATCTTGGCTCTCAGTCTCAGCTCCACACACCTGATGGGAGAAAGGT 1249
Db 2764 CGCTCTAGGATTCACATCTTGGCTCTCAGTCTCAGCTCCACACGCACTGACCGGCGGAAAGGT 2823
Qy 1250 GGTACAGTGTGGTCCGGGACCGCGGAGTGGGAGATCGTGAACAGGACATCACTA 1309
Db 2824 GGTACAGTGTGGTCCGGGACCGCGGAGTGGGAGATCGTGAACAGGACATCACTA 2883
Qy 1310 CAGCCCTCACTTCCAGGAGATCCGATGTTGAAGAGGTGCTGTCGCTCACTCCGGAGA 1369
Db 2884 CAGCCCACTTCCAGGAGATCCGATGTTGAAGAGGTGCTGTCGCTCACTCCAGCCGGAGA 2943
Qy 1370 TGTGCTATCACTCTCTGCACTGTAACAACAGGAGACCGGAGCTGGCCACAGTGGGGG 1429
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Db 2944 CGTGTCTATCACTCTTTGCAATACACACAGGAAGACAGGAGGTGGCCACCGTGGGGG 3003
Qy 1430 CTTGGGATCTGGAGGAGATGTGTCAACTACTGTGCACTACTACCCCGAGACGAGCT 1489
Db 3004 CTTGGGATCTGGAGGAGATGTGTCAACTACTGTGCACTACTACCCCGAGACGAGCT 3063
Qy 1490 GGAGCTCTGAAGACGGCTGTGGAAGCGGCTTCTGCAAGAGTACTTCCACCTCATCAA 1549
Db 3064 GGAGCTCTGAAGACGGCGCGTGGACCCCTGGCTTCTGCAAGAGTACTTCCGCTCGTGAA 3123
Qy 1550 CAGGTTCAACAAACAGGATGTCTGCACTGCGCCCTCAGGCGTCCGTGCTCAGCAGTTTGC 1609
Db 3124 CAGGTTCAACAAACAGGAGAAAGTCTGCACTGCGCCCGAGCGCTGTGCTCAGCAGTTTGC 3183
Qy 1610 CTCTGTTCCCTGGAACTCCTTCAACCGCGAGTACTGAAGCCCTGTACAGCTTCGCGCC 1669
Db 3184 CTCTGTTCCCTGGAACTCCTTCAACCGCGAGTGTCTCAAGGCCCTGTACGCTTCGCA 3243
Qy 1670 CATCTCATGCACTGCAACAAAGTCTCAGCGCTCCGCTTCCAGGCTGAATGAACTTCA 1729
Db 3244 CATCTCATGCACTGCAACAAAGTCTCAGCGCTCCGCTTCCAGGCGAGTGGAACTCGGCA 3303
Qy 1730 GCGCTCGCCCAAGTCTCCTCACTGGAAGAGCCACCCACAGTGCCTCCCAAGCCAGCA 1789
Db 3304 GCGCTCGCCCAAGTCTCCTCACTGGAAGAGCCACCCACAGTGCCTCCCAAGCCAGCA 3363
Qy 1790 GGGCGGAAGCCCTGCTGGCGCCACCGTTGTGAGCAATGGTGGGGCAAGGCTGAGGGG 1849
Db 3364 GGCTCAGAGCCCCCGCGCCCACTGCTGCTGATCAGTGGGGGCAAGGCTGAGGGG 3423
Qy 1850 GAC 1852
Db 3424 GGC 3426

RESULT 9
AAT62543
ID AAT62543 standard; DNA; 4499 BP.
XX
AC AAT62543;
XX
DT 07-JUN-1997 (first entry)
XX
IgSP-hPOMCdelACTH-IR5-rTHdel-IR5-BDBH-068 DNA sequence.
DE
KW Analgesic; pain; bioartificial organ; pro-opiomelanocotin; POMC;
KW beta-endorphin; tyrosine hydroxylase; dopamine beta-hydroxylase;
KW IgSP-hPOMC-delACTH-IR5-rTHdel-IR5-BDBH-068;
KW internal ribosome entry site; ss.
XX
OS Chimeric Homo sapiens;
OS Chimeric Rattus sp.;
OS Chimeric Bos taurus;
OS Chimeric picornavirus.
XX
Key Location/Qualifiers
FH 5'UTR 1..43
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FT exon 1..89
FT /*tag= b
FT /*codon start= 44
FT intron 90..168
FT /*tag= c
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FT exon 2692..4499
FT /*tag= h
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Db 28573 ACTTAGGAGTGTGCTTGGCGGCGCATTTACATTCTGACCCACATTTTCTCATCT 28632
QY 2666 GTAAACACAGGCTGATCCGTCGGGCTAATGAGCCCAATAAGCTCACACTTGGGTGCG 2725
Db 28633 GTAAACACAGGCTGATCCGTCGGGCTAATGAGCCCAATAAGCTCACACTTGGGTGCG 28692

RESULT 11
AAK75860/c
ID AAK75860 standard; DNA; 821 BP.
AC AAK75860;
XX
XX
DT 07-NOV-2001 (first entry)
XX
XX Human immune/haematopoietic antigen genomic sequence SEQ ID NO:30672.
DE Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW cytotstatic; Gene therapy; vaccine; metastasis; ds.
XX Homo sapiens.
OS WO200157182-A2.
XX
XX
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PD 09-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US01354.
XX
XX 31-JAN-2000; 2000US-0179065.
PR 04-FEB-2000; 2000US-0180628.
PR 24-FEB-2000; 2000US-0184664.
PR 02-MAR-2000; 2000US-0186350.
PR 16-MAR-2000; 2000US-0189874.
PR 17-MAR-2000; 2000US-0190076.
PR 18-APR-2000; 2000US-0198123.
PR 19-MAY-2000; 2000US-0205515.
PR 07-JUN-2000; 2000US-0209467.
PR 28-JUN-2000; 2000US-0214886.
PR 30-JUN-2000; 2000US-0215135.
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PR 14-JUL-2000; 2000US-0218290.
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PR 14-AUG-2000; 2000US-0225266.
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PR 18-AUG-2000; 2000US-0225759.
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PR 23-AUG-2000; 2000US-0227009.
PR 30-AUG-2000; 2000US-0228924.
PR 01-SEP-2000; 2000US-0229287.
PR 01-SEP-2000; 2000US-0229343.
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PR 05-SEP-2000; 2000US-0229509.
PR 05-SEP-2000; 2000US-0229513.
PR 06-SEP-2000; 2000US-0230437.
PR 06-SEP-2000; 2000US-0230438.
PR 08-SEP-2000; 2000US-0231242.
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PR 08-SEP-2000; 2000US-0232080.
PR 08-SEP-2000; 2000US-0232081.
PR 12-SEP-2000; 2000US-0231968.
PR 14-SEP-2000; 2000US-0232397.
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PR 14-SEP-2000; 2000US-0232399.
PR 14-SEP-2000; 2000US-0232400.
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PR 13-OCT-2000; 2000US-0239935.
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PR 20-OCT-2000; 2000US-0240960.
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PR 20-OCT-2000; 2000US-0241808.
PR 20-OCT-2000; 2000US-0241809.
PR 01-NOV-2000; 2000US-0241826.
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PR 08-NOV-2000; 2000US-0246474.
PR 08-NOV-2000; 2000US-0246475.
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PR 08-NOV-2000; 2000US-0246528.
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PR 08-NOV-2000; 2000US-0246609.
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PR 08-NOV-2000; 2000US-0246611.
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PR 17-NOV-2000; 2000US-0249207.
PR 17-NOV-2000; 2000US-0249208.
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PR 17-NOV-2000; 2000US-0249218.
PR 17-NOV-2000; 2000US-0249244.
PR 17-NOV-2000; 2000US-0249245.

PR 17-NOV-2000; 2000US-0249264.
 PR 17-NOV-2000; 2000US-0249265.
 PR 17-NOV-2000; 2000US-0249267.
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 PR 17-NOV-2000; 2000US-0249300.
 PR 01-DEC-2000; 2000US-0250160.
 PR 01-DEC-2000; 2000US-0250391.
 PR 05-DEC-2000; 2000US-0251030.
 PR 05-DEC-2000; 2000US-0251988.
 PR 05-DEC-2000; 2000US-0256719.
 PR 06-DEC-2000; 2000US-0251479.
 PR 06-DEC-2000; 2000US-0251856.
 PR 08-DEC-2000; 2000US-0251868.
 PR 08-DEC-2000; 2000US-0251869.
 PR 08-DEC-2000; 2000US-0251989.
 PR 08-DEC-2000; 2000US-0251990.
 PR 11-DEC-2000; 2000US-0254097.
 PR 05-JAN-2001; 2001US-0259678.
 XX (HUMA-) HUMAN GENOME SCI INC.
 FA Rosen CA, Barash SC, Ruben SM;
 XX WPI; 2001-483426/52.
 XX Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
 PT useful for preventing, diagnosing and/or treating cancers and
 PT metastasis -
 XX Disclosure; SEQ ID NO 30672; 3071pp + Sequence Listing; English.
 PS
 CC AAK54951 to AAK64702 encode the human immune/hematopoietic antigen (I)
 CC amino acid sequences given in AAK82170 to AAK91921. (I) have cytostatic
 CC activity, and can be used in gene therapy and vaccine production. (I)
 CC proteins and polynucleotides may be used in the prevention, diagnosis and
 CC treatment of diseases associated with inappropriate (I) expression. For
 CC example, they may be used to treat disorders associated with decreased
 CC expression by rectifying mutations or deletions in a patient's genome
 CC that affect the activity of (I) by expressing inactive proteins or to
 CC supplement the patients own production of (I). Additionally, (I)
 CC polynucleotides may be used to produce the secreted (I), by inserting
 CC the nucleic acids into a host cell and culturing the cell to express the
 CC protein. (I) proteins and polynucleotides may be used to prevent,
 CC diagnose and treat immune/hematopoietic-related diseases, especially
 CC cancers and cancer metastases of haematopoietic-derived cells. AAK64703
 CC to AAK87694 represent human immune/hematopoietic antigen genomic
 CC sequences from the present invention. AAK54942 to AAK54950 and AAK82169
 CC represent sequences used in the exemplification of the present invention.
 XX
 SQ Sequence 821 BP; 175 A; 251 C; 251 G; 144 T; 0 other;
 Query Match 25.3%; Score 689.4; DB 22; Length 821;
 Best Local Similarity 99.9%; Pred. No. 2.9e-140;
 Matches 690; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 2035 GGTTGGGTGCGCTGTGACCTACCTCGGACCGGAGTGACACGACCTCGTCCATTAAA 2094
 DB 821 GGTTGGGTGCGCTGTGACCTACCTCGGACCGGAGTGACACGACCTCGTCCATTAAA 762
 QY 2095 CCGGCTGACTCAGTCAGGAGACAGCCGACAGTGTGTCAGGCTCCAGCCCTCCGCGAG 2154
 DB 761 CCGGCTGACTCAGTCAGGAGACAGCCGACAGTGTGTCAGGCTCCAGCCCTCCGCGAG 702
 QY 2155 CCGTGTTCGCGCTACCTGGGTGGCTGGCTTCTGGGACGACGACCATCTGGCGCGG 2214
 DB 701 CCGTGTTCGCGCTACCTGGGTGGCTTCTGGGACGACGACCATCTGGCGCGG 642
 QY 2215 GTGTGGAATCACCGGAAACGCGCCCGCCCGCTGCTCCCGTGTGACGCGGGTG 2274
 DB 641 GTGTGGAATCACCGGAAACGCGCCCGCCCGCTGCTCCCGTGTGACGCGGGTG 582
 QY 2275 CGGCTGCGCTTAAACATTTCCCTGTGAGTGGCTCGTGTTCACAGTGGCGCGCTTCCC 2334
 DB 17-NOV-2000; 2000US-0249264.
 QY 2335 TGGACGAGGAGCAGGACGAGCATTTAGCTAGTTAGAGACTCGCTGGGAAATTTGCTCCA 2394
 DB 521 TGGACGAGGAGCAGGACGAGCATTTAGCTAGTTAGAGACTCGCTGGGAAATTTGCTCCA 462
 QY 2395 TTCTGTAGTAAACAGATATTTTCCGCCACCTTAAAGGGAAGCCCTGACAACTATCACC 2454
 DB 461 TTCTGTAGTAAACAGATATTTTCCGCCACCTTAAAGGGAAGCCCTGACAACTATCACC 402
 QY 2455 AAAAGACGAGCGGCAAGATCCAGCGGGGCTTCTGGCGCGCGTTTCCACGTTGGGTGGA 2514
 DB 401 AAAAGACGAGCGGCAAGATCCAGCGGGGCTTCTGGCGCGCGTTTCCACGTTGGGTGGA 342
 QY 2515 ATTATTAGCACCAGCTTGTCTCTGCGGTTGGGGCCAGCGCTCAACAGACCGGGGTGGA 2574
 DB 341 ATTATTAGCACCAGCTTGTCTCTGCGGTTGGGGCCAGCGCTCAACAGACCGGGGTGGA 282
 QY 2575 GTGAGGCTGTGCTTTTCCGGTGTCTTGCACCTTAGGGAGTGTGCTTGGCGGGCCAT 2634
 DB 281 GTGAGGCTGTGCTTTTCCGGTGTCTTGCACCTTAGGGAGTGTGCTTGGCGGGCCAT 222
 QY 2635 TTCACTTCTGACCCCTCACTTTCTCATCTGTAAACAGGCTGATGCCGTGGCGGCTA 2694
 DB 221 TTCACTTCTGACCCCTCACTTTTCTCATCTGTAAACAGGCTGATGCCGTGGCGGCTA 162
 QY 2695 ATGAGCCAATAAAGCTCAGACTTGGGCTGGC 2725
 DB 161 ATGAGCCAATAAAGCTCAGACTTGGGCTGGC 131
 RESULT 12
 AAC70719
 ID AAC70719 standard; DNA; 358 BP.
 XX AC AAC70719;
 XX 09-FEB-2001 (first entry)
 DT Single nucleotide polymorphism containing sequence #183.
 DE Single nucleotide polymorphism; SNP; human; genetic disease;
 KW disease susceptibility; cardiovascular system; endocrine system;
 KW neurological system; forensic testing; paternity testing; ds.
 XX Homo sapiens.
 OS WO200058519-A2.
 PN 05-OCT-2000.
 PD 30-MAR-2000; 2000WO-US08440.
 PF 31-MAR-1999; 99US-0127248.
 PR (WHEED) WHITEHEAD INST BIOMEDICAL RES.
 XX (AFFY-) AFFYMETRIX INC.
 PA Altshuler D, Cargill M, Daley GQ, Ireland JS, Lander ES;
 PI Lipshutz RJ, Patil N, Sklar P;
 XX WPI; 2000-611722/58.
 XX Nucleic acid selected from one of 106 genes comprising single
 PT nucleotide polymorphisms, allele-specific oligonucleotides to the genes
 PT are useful for phenotypic correlations, forensics, paternity testing,
 PT medicine and genetic analysis -
 XX Claim 1; Fig 5; 214pp; English.
 PS The present invention is concerned with a number of human single
 CC nucleotide polymorphisms (SNPs) which the inventors identified in human
 CC genes. These SNPs can be used in disease diagnosis and prediction of an

The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from *Drosophila*. The invention is useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL16116-ABL20511), expressed DNA sequences (ABL01840-ABL16175) and the encoded proteins (ABBS7737-ABBT2072).

The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.

SQ Sequence 2782 BP; 681 A; 728 C; 699 G; 674 T; 0 other;
 Query Match 9.4%; Score 255.6; DB 23; Length 2782;
 Best Local Similarity 51.8%; Pred. No. 7.7e-46;
 Matches 714 C

| | | | | |
|------|----|------|---|------|
| 375 | QY | 375 | CAGGACTACCAAGCTGCTGCAGGTCGACAGGACCCAGAGGCTGACCTGCTTTTCAAG | 434 |
| | | | | |
| 610 | Db | 610 | CGGGACTACACGACGAGGACTGTGAGTCTTCAAGATGGATGAGTTACGTTGGCGGTTTAGG | 669 |
| | | | | |
| 435 | QY | 435 | AGGCCCTTTGGGACCTGCGACCCCAAGGATTACCTCATTTGAAGACGGCACTGTCACATTG | 494 |
| | | | | |
| 670 | Db | 670 | CGCAAGTTTGACACTCGACCCCTTTGGAATTCGGACTCCAATGAGGGACAAATGATACGTG | 729 |
| | | | | |
| 495 | QY | 495 | GTCTACGGGATCCTGGAGGAGCGGTTCGGTCTACTGGAGCCATCAACGGGTCGGGGCTG | 554 |
| | | | | |
| 730 | Db | 730 | GTTT--GGGCCCGTGGTGAACCGAACTGGCCCTGGAGGATCACCAGTTGCTCTGCCCA | 787 |
| | | | | |
| 555 | QY | 555 | CAGATGGGGCTGCAGAGGGTGCAGCTCTCTGAAGCCCAATATCCCCGACCGGAGTTGCC | 614 |
| | | | | |
| 788 | Db | 788 | ATGTGACGGCACCGCACGAGCGCGGTGTTAAGATGCTACGCTACTACGGGCCCAACAAG | 847 |
| | | | | |
| 615 | QY | 615 | T-----CAGAGCGCTGCACCATGGAGTCCAAAGCTCCCAATATCCAGATCC | 660 |
| | | | | |
| 848 | Db | 848 | TACTTATACCCGAAACCGAGTTTGGATCAATGGAGATCACACTGCAGGAGCGCCAAATTC | 907 |
| | | | | |
| 661 | QY | 661 | CCAGCCAGGAGACACAGTACTGGTGCTACATTAAGGAGCTTCCAAAGGCTTCTTCGGC | 720 |
| | | | | |
| 908 | Db | 908 | CCAGTCAGGAGACCAAGTACTGGTGTCACTGCTTCAGCGACTGG--AGGGCAATCTCGGC | 964 |
| | | | | |
| 721 | QY | 721 | ACCACATTATCAAGTACGAGCCCATCGTCACCAGGGCAATGAGGCCCTTGTCCACCA | 780 |
| | | | | |
| 965 | Db | 965 | GTCCCATCATATCGTTTCAGTTCGAGCCGCTCATCCGAACCCGGGCATCGTGATCACA | 1024 |
| | | | | |
| 781 | QY | 781 | TGGAAGCTTTCAGTTCGGCCCCCGGAGATGGACAGCGTCCCCCACTTCAGCGGGCCCTCGG | 840 |
| | | | | |
| 1025 | Db | 1025 | TGGAAGTGTTCACCTCGAGGGCCGTGAGCAGGAGATTCCTCTGTAC--AACGGCG | 1081 |
| | | | | |
| 841 | QY | 841 | ACTCCAAGATGAAACCCGACCGCCTCAACTACTGCGGCCACGTGCTGGCCGCTGGGCC | 900 |
| | | | | |
| 1082 | Db | 1082 | ACTGTGAACAGTTTCGGCCACGGGCAAGATCTGCTCAAAAGTGATGGTCTCTGTGGGCCA | 1141 |
| | | | | |
| 901 | QY | 901 | TGGTGCCCAAGGCATTTTACTACCCAGAGGAAGCCGGCCTTTCCTTCGGGGTCCAGGT | 960 |
| | | | | |
| 1142 | Db | 1142 | TGGGCGGGCCACCTTTTACCTATCTCCGGAAGCCGGTCTACCAATCGGGGACCCGGCT | 1201 |
| | | | | |
| 961 | QY | 961 | CTTCAGATATCTCGCCTGGAAGTTTCACTACCAACCCCACTGGTGATAGAGGACGAA | 1020 |
| | | | | |
| 1202 | Db | 1202 | TCAATCCGTACGTTTCGACTGGAGGTACATTTCAATATCCGGAGAAGCAGTCCGGCTGG | 1261 |
| | | | | |
| 1021 | QY | 1021 | ACGACTCTCTCAGGCATCCGCTTGTACTACACAGCCAGCTGGCGCTTCAACGGGGGA | 1080 |
| | | | | |
| 1262 | b | 1262 | TGGACAACTCCGGCTTTCGCATCAAGATGTGGAAGACACTGGGTCAGTATGACGCGCGC | 1321 |
| | | | | |
| 1081 | Y | 1081 | TCATGGAAGTGGGACTGGTGTACACGCCAGTGTGGCCATTCACCAACGGGAGACCGCT | 1140 |
| | | | | |
| 1322 | b | 1322 | TTATGGAATCGGCTGAGGTACACCGACAAATGGCCATTCCGCTGGCCTTCCGCTT | 1381 |
| | | | | |
| 1141 | Y | 1141 | TCATCCTCACTGGCTACTGCAACGGAACAGTGCACCGAGCTGGCACTGGCTCCCTCCGGA | 1200 |
| | | | | |

KW antirheumatic; antiarthritic; antidiabetic; antipsoriatic;
KW antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia;
KW acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy;
KW neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease;
KW gene; ds.
XX
OS Homo sapiens.
XX
XX WO200200928-A2.
XX
XX 03-JAN-2002.
XX
XX 02-JUL-2001; 2001WO-EP07537.
XX
XX 30-JUN-2000; 2000DE-1032529.
XX
XX 01-SEP-2000; 2000DE-1043826.
XX
XX (EPIG-) EPIGENOMICS AG.
XX
XX Olek A, Piepenbrock C, Berlin K;
XX WPI; 2002-130909/17.
XX
XX Nucleic acid comprising fragment of chemically modified gene, useful
XX for diagnosis and treatment of diseases associated with abnormal
XX cytosine methylation -
XX
XX Claim 1; SEQ ID NO 2269; 32pp + Sequence Listing; German.
XX
XX The present invention provides a number of human immune system associated
XX genes which are modified by the methylation of cytosines. The sequences
XX can be used in the diagnosis and treatment of immune system disorders,
XX including eye diseases such as retinopathy, neovascular glaucoma and
XX macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid
XX leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis,
XX rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel
XX diseases. The present sequence is a gene of the invention.
XX
XX Sequence 2037 BP; 417 A; 49 C; 645 G; 926 T; 0 other;
XX
XX Query Match 6.6%; Score 179.6; DB 24; Length 2037;
XX Best Local Similarity 71.5%; Pred. No. 2.4e-29;
XX Matches 236; Conservative 0; Mismatches 94; Indels 0; Gaps 0;
XX
XX 1 TCAGTCGTCGGCCAGCCTGCGCGCCCGCCAGCATGCGGGAGGAGCGCTTCATGTACAGCA 60
XX 1700 TAGTCGTCGGTGTAGTTGTTCGGTTTATGTATGCGGAGGTAGTTTATGTATAGTA 1759
XX
XX 61 CAGCAGTGGCCATCTTCCTGTCATCTCTGTCGTCGCGCCAGCTGCGGGCTCGGCTCCCGTG 120
XX 1760 TAGTAGTGGTATTTTGTGTTATTTGTTGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 1819
XX
XX 121 AGAGCCCTCCCTATCACATCCCTCGTCATCTGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 180
XX 1820 AGAGTTTATTTTATTTATTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTA 1879
XX
XX 181 ATGTCAGCTACACCCAGGAGGCCATCCATTTCCAGCTCTCTGTCGTCGTCGTCGTCGTCGTCG 240
XX 1880 ATGTTAGTTATTTAGAGGTTTATTTATTTTATTTTATTTTATTTTATTTTATTTTATTTA 1939
XX
XX 241 GCGTCCTGTTTGGGATGTCGCGCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 300
XX 1940 GCGTTTGTGTTGGGATGTCGATGTCGCGAGTTTGGACGAGTTTGGACGAGTTTGGGATGTCG 1999
XX
XX 301 GGACCGATGGGACACTGCCATTTTTCGG 330
XX 2000 GGATCGATGGGATGTTGTTTATTTTTCGG 2029
XX
XX RESULT 18
XX AAD28398
XX ID AAD28398 standard; DNA; 2037 BP.
XX

AC AAD28398;
XX
XX 22-APR-2002 (first entry)
XX
XX Human chemically treated genomic DNA #39.
XX
XX Human; cytostatic; antidepressant; neuroleptic; nootropic; antiaddictive;
XX adrenergic alpha-1C-receptor; cytosine methylation; therapy; alcoholism;
XX behavioural disorder; neurological; psychiatric; cancer; schizophrenia;
XX Tourette's syndrome; smoking; human immunodeficiency virus dementia;
XX drug abuse; migraine; ds.
XX
XX Homo sapiens.
XX
XX WO200202809-A2.
XX
XX 10-JAN-2002.
XX
XX 02-JUL-2001; 2001WO-EP07540.
XX
XX 30-JUN-2000; 2000DE-1032529.
XX
XX 01-SEP-2000; 2000DE-1043826.
XX
XX (EPIG-) EPIGENOMICS AG.
XX
XX Olek A, Piepenbrock C, Berlin K;
XX WPI; 2002-154759/20.
XX
XX Novel nucleic acid useful for diagnosis and therapy of behavioral
XX disorder, neurological disorder and cancer, comprises a sequence of a
XX segment of chemically pretreated DNA of adrenergic alpha-1C-receptor
XX gene -
XX
XX Claim 1; Page 178; 190pp; English.
XX
XX The invention relates to nucleic acids comprising a segment of chemically
XX pretreated DNA of adrenergic alpha-1C-receptor gene. The invention also
XX relates to oligonucleotides or peptide nucleic acid (PNA) oligomers
XX useful for detecting cytosine methylations. The pretreated DNA is useful
XX for the diagnosis and therapy of behavioural disorders, neurological
XX disorders and cancer, in particular major depressive disorder, Tourette's
XX syndrome, schizophrenia, psychiatric and neurological disorders, smoking,
XX drug abuse, alcoholism, personality traits, compulsive disorders, human
XX immunodeficiency virus dementia, migraine, behaviours in schizophrenic
XX and schizoaffective patients, and suicidal behaviour in patients with
XX schizophrenia. The nucleic acid is useful for detecting the methylation
XX state of all CpG dinucleotides and/or single nucleotide polymorphisms
XX (SNPs). The present sequence is human chemically treated genomic DNA.
XX
XX Sequence 2037 BP; 417 A; 49 C; 645 G; 926 T; 0 other;
XX
XX Query Match 6.6%; Score 179.6; DB 24; Length 2037;
XX Best Local Similarity 71.5%; Pred. No. 2.4e-29;
XX Matches 236; Conservative 0; Mismatches 94; Indels 0; Gaps 0;
XX
XX 1 TCAGTCGTCGGCCAGCCTGCGCGCCCGCCAGCATGCGGGAGGAGCGCTTCATGTACAGCA 60
XX 1700 TAGTCGTCGGTGTAGTTGTTCGGTTTATGTATGCGGAGGTAGTTTATGTATAGTA 1759
XX
XX 61 CAGCAGTGGCCATCTTCCTGTCATCTGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 120
XX 1760 TAGTAGTGGTATTTTGTGTTATTTGTTGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 1819
XX
XX 121 AGAGCCCTCCCTATCACATCCCTCGTCATCTGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 180
XX 1820 AGAGTTTATTTTATTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTA 1879
XX
XX 181 ATGTCAGCTACACCCAGGAGGCCATCCATTTCCAGCTCTCTGTCGTCGTCGTCGTCGTCGTCG 240
XX 1880 ATGTTAGTTATTTAGAGGTTTATTTATTTTATTTTATTTTATTTTATTTTATTTTATTTA 1939
XX
XX 241 GCGTCCTGTTTGGGATGTCGCGCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 300

```
Db 1940 GCGTTTGTGGATGTTGCGATCGTGGGAGTTTGAGAACGTAGATTTTCGTGGTGTGTTT 1999
Qy 301 GGACCGATGGGACACTGCTATTGTCGG 330
Db 2000 GGATCGATGGGATATTGTTATTGTCGG 2029

RESULT 19
AAC70716
ID AAC70716 standard; DNA; 178 BP.
XX
AC AAC70716;
XX
DT 09-FEB-2001 (first entry)
XX
DE Single nucleotide polymorphism containing sequence #182.
XX
KW Single nucleotide polymorphism; SNP; human; genetic disease;
KW disease susceptibility; cardiovascular system; endocrine system;
KW neurological system; forensic testing; paternity testing; ds.
XX
OS Homo sapiens.
XX
PN WO200058519-A2.
XX
PD 05-OCT-2000.
XX
PF 30-MAR-2000; 2000WO-US08440.
XX
PR 31-MAR-1999; 99US-0127248.
XX
PA (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA (AFFV-) AFFYMETRIX INC.
XX
PI Althuler D, Cargill M, Daley GQ, Ireland JS, Lander ES;
PI Lipshutz RJ, Patil N, Sklar P;
XX
DR WPI; 2000-611722/58.
XX
PT Nucleic acid selected from one of 106 genes comprising single
PT nucleotide polymorphisms, allele-specific oligonucleotides to the genes
PT are useful for phenotypic correlations, forensics, paternity testing,
PT medicine and genetic analysis -
XX
PS Claim 1; Fig 5; 214pp; English.
XX
CC The present invention is concerned with a number of human single
CC nucleotide polymorphisms (SNPs) which the inventors identified in human
CC genes. These SNPs can be used in disease diagnosis and prediction of an
CC individual's susceptibility to disease, in forensic and paternity testing
CC and in genetic mapping. In particular, the SNPs of the invention can be
CC used to diagnose susceptibility to diseases of the cardiovascular,
CC endocrine and neurological systems, such as coronary artery disease,
CC schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's
CC diseases.
CC Note: The degenerate codon within the sequence represents the position
CC of an SNP, for example the letter S represents a polymorphism where the
CC nucleotide may be C or G.
XX
SQ Sequence 178 BP; 32 A; 68 C; 39 G; 38 T; 1 other;

Query Match 6.1%; Score 165; DB 21; Length 178;
Best Local Similarity 98.8%; Pred. No. 2e-26;
Matches 165; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1547 CAACAGGTTCAACACGAGGATGTCGACCTGCCCTCAGGCGTCCGTTCTCAGCAGTT 1606
Db 4 CACCAAGTTCAACACGAGGATGTCGACCTGCCCTCAGGCGTCCGTTCTCAGCAGTT 63
Qy 1607 CACCTCTGTTCCCTGGAACTCTTCAACCGGACGTAAGGCGCTGTACAGTTCCG 1666
Db 64 CACCTCTGTTCCCTGGAACTCTTCAACCGGACGTAAGGCGCTGTACAGTTCCG 123
```

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Qy 1667 GCCATCTCCATGCACTGCAACAAAGTCCTCAGCGTCCGTTCCAGG 1713
Db 124 GCCATCTCCATGCACTGCAACAAAGTCCTCAGCGTCCGTTCCAGG 170

RESULT 20
AAC70722
ID AAC70722 standard; DNA; 178 BP.
XX
AC AAC70722;
XX
DT 09-FEB-2001 (first entry)
XX
DE Single nucleotide polymorphism containing sequence #184.
XX
KW Single nucleotide polymorphism; SNP; human; genetic disease;
KW disease susceptibility; cardiovascular system; endocrine system;
KW neurological system; forensic testing; paternity testing; ds.
XX
OS Homo sapiens.
XX
PN WO200058519-A2.
XX
PD 05-OCT-2000.
XX
PF 30-MAR-2000; 2000WO-US08440.
XX
PR 31-MAR-1999; 99US-0127248.
XX
PA (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA (AFFV-) AFFYMETRIX INC.
XX
PI Althuler D, Cargill M, Daley GQ, Ireland JS, Lander ES;
PI Lipshutz RJ, Patil N, Sklar P;
XX
DR WPI; 2000-611722/58.
XX
PT Nucleic acid selected from one of 106 genes comprising single
PT nucleotide polymorphisms, allele-specific oligonucleotides to the genes
PT are useful for phenotypic correlations, forensics, paternity testing,
PT medicine and genetic analysis -
XX
PS Claim 1; Fig 5; 214pp; English.
XX
CC The present invention is concerned with a number of human single
CC nucleotide polymorphisms (SNPs) which the inventors identified in human
CC genes. These SNPs can be used in disease diagnosis and prediction of an
CC individual's susceptibility to disease, in forensic and paternity testing
CC and in genetic mapping. In particular, the SNPs of the invention can be
CC used to diagnose susceptibility to diseases of the cardiovascular,
CC endocrine and neurological systems, such as coronary artery disease,
CC schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's
CC diseases.
CC Note: The degenerate codon within the sequence represents the position
CC of an SNP, for example the letter S represents a polymorphism where the
CC nucleotide may be C or G.
XX
SQ Sequence 178 BP; 32 A; 69 C; 39 G; 37 T; 1 other;

Query Match 6.1%; Score 165; DB 21; Length 178;
Best Local Similarity 98.8%; Pred. No. 2e-26;
Matches 165; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1547 CAACAGGTTCAACACGAGGATGTCGACCTGCCCTCAGGCGTCCGTTCTCAGCAGTT 1606
Db 4 CACCAAGTTCAACACGAGGATGTCGACCTGCCCTCAGGCGTCCGTTCTCAGCAGTT 63
Qy 1607 CACCTCTGTTCCCTGGAACTCTTCAACCGGACGTAAGGCGCTGTACAGTTCCG 1666
Db 64 CACCTCTGTTCCCTGGAACTCTTCAACCGGACGTAAGGCGCTGTACAGTTCCG 123
Qy 1667 GCCATCTCCATGCACTGCAACAAAGTCCTCAGCGTCCGTTCCAGG 1713
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Db      124  GCCCATCTCCATGCACTGCAACAGTCTCTCAGCGCTCCGCTTCAGG 170
|||||
RESULT 21
AAC70725
ID      AAC70725 standard; DNA; 178 BP.
XX
AC      AAC70725;
XX
DT      09-FEB-2001 (first entry)
XX
DE      Single nucleotide polymorphism containing sequence #185.
XX
KW      Single nucleotide polymorphism; SNP; human; genetic disease;
KW      disease susceptibility; cardiovascular system; endocrine system;
KW      neurological system; forensic testing; paternity testing; ds.
XX
OS      Homo sapiens.
XX
FN      WO200058519-A2.
XX
PD      05-OCT-2000.
XX
PF      30-MAR-2000; 2000WO-US08440.
XX
PR      31-MAR-1999; 99US-0127248.
XX
PA      (WHED ) WHITEHEAD INST BIOMEDICAL RES.
PA      (AFFY-) AFFYMETRIX INC.
XX
PI      Altshuler D, Cargill M, Daley GO, Ireland JS, Lander ES;
PI      Lipshutz RJ, Patil N, Sklar P;
XX
WPI; 2000-611722/58.
XX
DR      Nucleic acid selected from one of 106 genes comprising single
PT      nucleotide polymorphisms, allele-specific oligonucleotides to the genes
PT      are useful for phenotypic correlations, forensics, paternity testing,
PT      medicine and genetic analysis -
XX
Claim 1; Fig 5; 214pp; English.
XX
PS      The present invention is concerned with a number of human single
CC      nucleotide polymorphisms (SNPs) which the inventors identified in human
CC      genes. These SNPs can be used in disease diagnosis and prediction of an
CC      individual's susceptibility to disease, in forensic and paternity testing
CC      and in genetic mapping. In particular, the SNPs of the invention can be
CC      used to diagnose susceptibility to diseases of the cardiovascular,
CC      endocrine and neurological systems, such as coronary artery disease,
CC      schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's
CC      diseases.
CC      Note: The degenerate codon within the sequence represents the position
CC      of an SNP, for example the letter S represents a polymorphism where the
CC      nucleotide may be C or G.
SQ      Sequence 178 BP; 32 A; 68 C; 39 G; 38 T; 1 other;

Query Match
Best Local Similarity 6.1%; Score 165; DB 21; Length 178;
Matches 165; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY      1547 CAACAGGTTCAACACGAGGATGTCTGCACCTGCGCTCAGCGCTCCGCTTCAGCAGTT 1606
Db      4 CACCAGGTTCAACACGAGGATGTCTGCACCTGCGCTCAGCGCTCCGCTTCAGCAGTT 63
QY      1607 CACCTCTGTTCCCTCGAAGTCTCTTCAACCGCGAGTACTGAAGCCTGTACAGCTTCGC 1666
Db      64 CACCTCTGTTCCCTCGAAGTCTCTTCAACCGCGAGTACTGAAGCCTGTACAGCTTCGC 123
QY      1667 GCCCATCTCCATGCACTGCAACAGTCTCTCAGCGCTCCGCTTCAGG 1713
Db      124 GCCCATCTCCATGCACTGCAACAGTCTCTCAGCGCTCCGCTTCAGG 170
```

```
RESULT 22
AAS21338
ID      AAS21338 standard; cDNA; 2150 BP.
XX
AC      AAS21338;
XX
DT      24-OCT-2001 (first entry)
XX
DE      Human cDNA sequence encoding for PRO5780 polypeptide.
XX
KW      Human secretory and transmembrane; PRO; mammalian; cancer; lung;
KW      breast; prostate; cervical; tumour necrosis factor-alpha; TNF-alpha;
KW      cartilage; ear; proliferation; glucose; free fatty acid; skeletal muscle;
KW      adipocyte; A-peptide; factor VIIA; gene therapy; ss.
XX
OS      Homo sapiens.
XX
FN      WO200140466-A2.
XX
PD      07-JUN-2001.
XX
PF      01-DEC-2000; 2000WO-US32678.
XX
PR      01-DEC-1999; 99WO-US28301.
PR      01-DEC-1999; 99WO-US28634.
PR      02-DEC-1999; 99WO-US28551.
PR      02-DEC-1999; 99WO-US28564.
PR      02-DEC-1999; 99WO-US28565.
PR      09-DEC-1999; 99US-0170262.
PR      16-DEC-1999; 99WO-US30095.
PR      20-DEC-1999; 99WO-US30911.
PR      20-DEC-1999; 99WO-US30999.
PR      30-DEC-1999; 99WO-US31243.
PR      06-JAN-2000; 2000WO-US00277.
PR      06-JAN-2000; 2000WO-US00376.
PR      11-FEB-2000; 2000WO-US03565.
PR      18-FEB-2000; 2000WO-US04341.
PR      18-FEB-2000; 2000WO-US04342.
PR      22-FEB-2000; 2000WO-US04414.
PR      24-FEB-2000; 2000WO-US04914.
PR      24-FEB-2000; 2000WO-US05004.
PR      01-MAR-2000; 2000WO-US05601.
PR      20-MAR-2000; 2000WO-US07377.
PR      21-MAR-2000; 2000WO-US07532.
PR      30-MAR-2000; 2000WO-US08439.
PR      17-MAY-2000; 2000WO-US13705.
PR      22-MAY-2000; 2000WO-US14042.
PR      30-MAY-2000; 2000WO-US14941.
PR      02-JUN-2000; 2000WO-US15264.
PR      10-NOV-2000; 2000WO-US30873.
XX
PA      (GETH ) GENENTECH INC.
XX
PI      Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI      Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI      Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
WPI; 2001-408281/43.
DR      P-PSDB; AAU12266.
DR
XX      Isolated, secretory and transmembrane PRO polypeptide used to detect
XX      other PRO polypeptides, link bioactive molecules to cells expressing
PT      PRO polypeptides, and detect the presence of mammalian tumours e.g.
PT      lung, breast, prostate, cervical -
XX
Claim 3; Fig 189; 813pp; English.
XX
AAS21244-AAS21518 encode for novel human secretory and transmembrane
CC      PRO polypeptides. The PRO polypeptides are useful to detect other
CC      PRO polypeptides, to link bioactive molecules to cells expressing
CC      PRO polypeptides, to modulate biological activities of cells expressing
```

| | | | |
|----|------|--|------|
| Db | 833 | TTGGTGAGAGGGCTTTTCTTATCCACCTCATGTTGGATTATCCCTTGGCACTCCATTAG | 892 |
| Qy | 961 | CCTCCAGATATCTCCGGCTGGAGTTCATTACACAAACCACCTGGTGATAGAGGACGAA | 1020 |
| Db | 893 | ATCCGATTATGCTCTCCTAGAAAGTCCATTATGATAATCCCACTTATGAGGAAGGCTTAA | 952 |
| Qy | 1021 | ACCACTCCTCAGGCATCCGGCTCTACTACACAGCCCAAGCTCGCGCGCTTCAACCGCGGGA | 1080 |
| Db | 953 | TAGATAATTCAGCATGAGGTTATTTTACAATGATATTAAGAAATATGATGCTGGGG | 1012 |
| Qy | 1081 | TCATGGAGCTGGGACTGGTGTTACACGCCAGTGAATGGCCATTCCACCACGGGAGACCGCCT | 1140 |
| Db | 1013 | TGATTGAGGCTGGCCTCTGGGTGAGCCTCTTCATACCATCCCTCCAGGGATGCTTGAGT | 1072 |
| Qy | 1141 | TCATCTCACTGCTACTGCACGGACAAGTGCAACCGAGTGGCACTG-----CCTC | 1191 |

Db 1073 TCCAGTCTGAGGGTCACTGCACCTTTGGAGTGCCTGGAAGAGGCTCTGGAAGCCGAAAGC 1132

Db 1133 CAAGTGGAAATTCATGTGTTTGGCTGTCTTCTCCATGCTCACCTGGTGGCGAGAGGCATCA 1192
 Qy 1192 CCTCCGGGATCCACATCTTCGCTCTCAGCTCCACACACCTGACTGGGAGAAAGGTGG 1251

| | | | |
|-----------|--|--|------|
| QY | 1252 | TCACAGTCTGTCGCGGACGCGCGGAGTGGAGATCGTGAACCAAGGACAATCACTACA | 1311 |
| Db | 1193 | GGCTGCGTCATTTTCGAAAAGGAAGAAATGAAATTA | 1252 |
| QY | 1312 | GCCTCACTTCACAGGAGATCCGCATGTTGAAGAAGTGTGTCGTCCTATCCGGGAGATG | 1371 |
| Db | 1253 | ACTTCAATTTCCAGGAGTTTCAGTATCTAAAGGAAGAACAAACAATCTTACCAGGAGATA | 1312 |
| QY | 1372 | TGCTCATCACTCTCCAGTACCAACACCGGAGACCGGAGCTGGCCACAGTGGGGGGCT | 1431 |
| Db | 1313 | ACCTAATTA | 1372 |
| QY | 1432 | TCGGGATCTCGGAGGAGATGTGTGTCAACTACGTGCACCTACTACCC | 1477 |
| Db | 1373 | TAAGCACCAAGGAGTGAATGTGTCTCTCATACCTCTTTATTATACC | 1418 |
| RESULT 23 | | | |
| ACA03697 | | | |
| ID | ACA03697 standard; cDNA; 2150 BP. | | |
| XX | ACA03697; | | |
| XX | 23-MAY-2003 (first entry) | | |
| DT | cDNA encoding human PRO polypeptide #95. | | |
| DE | Human; PRO polypeptide; secreted and transmembrane protein; | | |
| XX | tumour necrosis factor-alpha; TNF-alpha; blood; proliferation; | | |
| KW | differentiation; chondrocyte; tumour; genetic disorder; | | |
| KW | cytostatic; gene; ss. | | |
| XX | Homo sapiens. | | |
| OS | XX | | |
| PN | US2003036180-A1. | | |
| XX | 20-FEB-2003. | | |
| PD | XX | | |
| XX | 09-MAY-2002; 2002US-0143114. | | |
| PF | XX | | |
| XX | 31-MAR-1997; 97WO-US05230. | | |
| PR | 12-JUN-1998; 98WO-US12456. | | |
| PR | 14-JUL-1998; 98WO-US14552. | | |
| PR | 28-AUG-1998; 98WO-US17888. | | |
| PR | 10-SEP-1998; 98WO-US18824. | | |
| PR | 14-SEP-1998; 98WO-US19093. | | |
| PR | 14-SEP-1998; 98WO-US19094. | | |
| PR | 14-SEP-1998; 98WO-US19177. | | |
| PR | 16-SEP-1998; 98WO-US19330. | | |
| PR | 17-SEP-1998; 98WO-US19437. | | |
| PR | 07-OCT-1998; 98WO-US21141. | | |

RESULT 23

ACA03697
ID ACA03697 standard; cDNA; 2150 BP.

ACA03697:

DT 23-MAY-2003 (first entry)

DE cDNA encoding human PRO polypeptide #95.

Human; PRO polypeptide; secreted and transmembrane protein;
 tumour necrosis factor- α ; TNF- α ; blood; proliferation;
 differentiation; chondrocyte; tumour; genetic disorder;
 cytostatic; gene; ss.

OS Homo sapiens.

PN US2003036180-A1.

PD 20-FEB-2003.

09-MAY-2002; 2002US-0143114.

PR 31-MAR-1997; 97WO-US05230.

PR 14-JUL-1998: 98WO-US14552.
PR 12-JUN-1998: 98WO-US14550.

PR 10-SEP-1998; 98WO-US18824.
PR 10-SEP-1998; 98WO-US18824.
PR 10-SEP-1998; 98WO-US18824.

PR 98WO-US19094.
PR 98WO-US19093.
PR 14-SEP-1998:
PR 14-SEP-1998:

EX 14-SEP-1998; 38WC-US19177.
PR 16-SEP-1998; 98WC-US19330.

PK 17-SEP-1998; 98WO-US19437.
PR 07-OCT-1998; 98WO-US21141.

PR 24-FEB-2000; 2000WO-US04914.
 PR 24-FEB-2000; 2000WO-US05004.
 PR 01-MAR-2000; 2000WO-US05601.
 PR 02-MAR-2000; 2000WO-US05746.
 PR 10-MAR-2000; 2000WO-US05841.
 PR 12-MAR-2000; 2000WO-US06319.
 PR 15-MAR-2000; 2000WO-US06884.
 PR 20-MAR-2000; 2000WO-US07377.
 PR 21-MAR-2000; 2000WO-US07532.
 PR 30-MAR-2000; 2000WO-US08439.
 PR 17-MAY-2000; 2000WO-US13705.
 PR 22-MAY-2000; 2000WO-US14042.
 PR 30-MAY-2000; 2000WO-US14941.
 PR 02-JUN-2000; 2000WO-US15264.
 PR 28-JUL-2000; 2000WO-US20710.
 PR 11-AUG-2000; 2000WO-US22031.
 PR 23-AUG-2000; 2000WO-US23522.
 PR 24-AUG-2000; 2000WO-US23328.
 PR 08-NOV-2000; 2000WO-US30952.
 PR 10-NOV-2000; 2000WO-US30953.
 PR 01-DEC-2000; 2000WO-US32678.
 PR 20-DEC-2000; 2000WO-US34956.
 PR 28-FEB-2001; 2001WO-US06520.
 PR 01-MAR-2001; 2001WO-US06520.
 PR 25-MAY-2001; 2001WO-US06666.
 PR 01-JUN-2001; 2001WO-US17092.
 PR 20-JUN-2001; 2001WO-US17800.
 PR 22-JUN-2001; 2001WO-US19692.
 PR 29-JUN-2001; 2001WO-US20116.
 PR 09-JUL-2001; 2001WO-US21066.
 PR 20-DEC-2000; 2000US-074259.
 PR 28-FEB-2001; 2001US-0796498.
 PR 09-MAR-2001; 2001US-0802706.
 PR 14-MAR-2001; 2001US-0808689.
 PR 22-MAR-2001; 2001US-0816744.
 PR 05-APR-2001; 2001US-0828366.
 PR 10-MAY-2001; 2001US-0854208.
 PR 18-MAY-2001; 2001US-0854280.
 PR 25-MAY-2001; 2001US-0860216.
 PR 25-MAY-2001; 2001US-0866028.
 PR 01-JUN-2001; 2001US-0866034.
 PR 05-JUN-2001; 2001US-0872035.
 PR 14-JUN-2001; 2001US-0874503.
 PR 19-JUN-2001; 2001US-0882636.
 PR 21-JUN-2001; 2001US-0886342.
 PR 18-JUL-2001; 2001US-0887879.
 PR 06-AUG-2001; 2001US-0908827.
 PR 09-AUG-2001; 2001US-0924419.
 PR 16-AUG-2001; 2001US-0931836.
 PR 19-DEC-2001; 2001US-0028072.

(GETH) GENENTECH INC.

Baker KP, Beresini M, DeForge L, Desnoyers L, Filvaroff E, Gao W;
 Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
 Smith V, Stewart TA, Tamas D, Watanabe CK, Wood WI, Zhang Z;

WPI: 2003-331925/31.
 P-FSDs; ABU66940.

New secreted and transmembrane nucleic acids and polypeptides,
 designated as PRO, useful for treating inflammation. Organ failure,
 atherosclerosis, cardiac injury, infertility, birth defects, premature
 aging, AIDS, or cancer

Claim 2; Fig 189; 659pp; English.

The invention relates to an isolated nucleic acid comprising, or which is
 at least 80% identical to, or the full-length coding sequence of, any of
 the 275 nucleotide sequences, encoding the corresponding PRO polypeptide
 (one of 275 secreted or transmembrane proteins). The nucleic acid
 further comprises the full-length coding sequence of the DNA deposited

CC under American Type Culture Collection (ATCC) accession number in a list
 CC given in the specification. Also included are vectors and host
 CC cells for producing PRO proteins, PRO fusion proteins, anti-PRO
 CC antibodies, PRO extracellular domains and mature sequences, methods
 CC of detecting PRO proteins, methods for stimulating the release of
 CC TNF-alpha (tumour necrosis factor alpha) from human blood,
 CC (and the proliferation of differentiation of chondrocyte cells, the
 CC proliferation of, or gene expression in pericyte cells, the release or
 CC proteoglycans from cartilage, proliferation of inner ear articular
 CC supporting cells, the proliferation of T-lymphocyte cells, the release
 CC of a cytokine from peripheral blood mononuclear cells (PBMC), or the
 CC proliferation of endothelial cells), a method for modulating the uptake
 CC of glucose or free fatty acid (FFA) by skeletal muscle cells,
 CC a method for inhibiting the binding of A-peptide to factor VIIA,
 CC or the differentiation of adipocyte cells, a method for detecting the
 CC presence of a tumour in a mammal and an oligonucleotide probe derived
 CC from any of the nucleotide sequences cited above. The nucleic acids and
 CC polypeptides are useful for treating inflammatory diseases, organ
 CC failure, atherosclerosis, cardiac injury, infertility, birth defects,
 CC premature aging, AIDS (acquired immunodeficiency syndrome), cancer, or
 CC diabetic complications. The nucleic acids are useful as hybridisation
 CC probes, in chromosome and gene mapping, and in generating antisense RNA
 CC or DNA. The polypeptides are useful as pharmaceuticals, diagnostics,
 CC biosensors or bioreactors. Both are useful in tissue typing.
 CC The present sequence encodes a PRO protein of the invention.

XX
 SQ Sequence 2150 BP; 586 A; 496 C; 499 G; 569 T; 0 other;

Query Match 5.4%; Score 146.8; DB 25; Length 2150;
 Best Local Similarity 47.3%; Pred. No. 3.2e-22;
 Matches 618; Conservative 0; Mismatches 667; Indels 21; Gaps 5;

| | | | |
|----|-----|--|-----|
| QY | 187 | GCTACACCCAGGAGCCATCCATTTCCAGCTCTGTGGGAGGCTCAAGGTGGCGTCC | 246 |
| DB | 119 | GCTGGAGCCAGCGGGCAGCCAGATCGCTTCGGCTCCAGGTGGCGCTGAGGTACG | 178 |
| QY | 247 | TG---TTTGGGATGTCGAGCCGTGGCGAGCTTGAGAACCGACATCTCGTGTCTTGA | 303 |
| DB | 179 | TGGGCTTCGGCTTCTCGCCACCGGGCCATGGCGTCCGCCACATCGTCTGGGGGGG | 238 |
| QY | 304 | CGATGGGACACTGCCTATTTTGGGAGCGCTGGAGTGACCCAGAGGGGCGAGATCCACC | 363 |
| DB | 239 | TGGCCACACGGGGCCCTACCTCCAGGATTTTACAAATGCAATAGAGAGTTGAATA | 298 |
| QY | 364 | TGATCCCGCAGGAGCTACAGCTGCTGCAGGTGAGAGGACCCAGAGGCTGACCC | 423 |
| DB | 299 | AAGTGTCTCAGCAAGATTACCATCTAGATATGCCATGGAAATAGCACACACATAA | 358 |
| QY | 424 | TGCTTTTCAAGAGGGCCCTTTGGCACCTCGACCCCAAGGATTACCTCATTTGAAGAGCA | 483 |
| DB | 359 | TTGAAATTTACAGAGAGCTGCATACATGTGACATAAATGACNAGAGTAAACGGATAGCA | 418 |
| QY | 484 | CTGTCCACTTGTCTACGGGATCTTGGAGGAGCCGTTCCGGTCACTGGAGGCCATCAACG | 543 |
| DB | 419 | CTGTGAGAGTGATCTCTGGGCTTACCACCATGAAGATGACAGGAGAGCTGGTCCCAAGTACC | 478 |
| QY | 544 | GCTCGGGCTGTCAGATGGGCTGTCAGAGGGTGCGACTCTCTGAGGCCCAATATCCCGAAC | 603 |
| DB | 479 | ---ATGACTCCATAGGGGCGACCAAGGTTTGGGTTTATTGAATCTCTGAGAAAAA- - -TA | 532 |
| QY | 604 | CGAGTTCCCTCAGACGCGGTGCACCATGGAGGTCACAGCTCCCAATATCCAGATCCCA | 663 |
| DB | 533 | GTGTGCTATCTACAGCCCTTACCACATCTTGATCTGGTAAATCAGGAGCTGCCCATCCAA | 592 |
| QY | 664 | GCCAGGAGACCGTACTGCTGCTACATTAAGGAGCTTCCAAAGGGCTTCTCTCGGCACC | 723 |
| DB | 593 | ACAAGATACAAATATTTGGTGGCCAAATGTTTAAGATTCTCTGTTCCAAAGAAAAGCATC | 652 |
| QY | 724 | ACATTATCAAGTACAGGCCCATCGTCCAGAGGGCAATGAGGCCCTTGTTCACCCACATGG | 783 |
| DB | 653 | ATGTAATAAAGGTTTGAGCCAGTATACAGAGAGGCCCATGAGAGTCTGCTGCACCATCC | 712 |
| QY | 784 | AAGTCTTCCAGTGGCGCCCCGA- - -GATGNACAGCTGCCCACTTCAGCGGGCCCTGCG | 840 |

| | | | | | |
|-----------|--|--|------|----|------------------------------|
| Ds | 713 | TGCTCTATCAGTGCAGCAACAACTTTAAAGCAGCGTTCTGGAGTCCGGCCACAGTGT | 772 | PD | 23-JAN-2003. |
| Qy | 841 | ACTCAAGATGAACCCGACCGCTCAACTACTTCCGCGCACCGTCTGGCGCTCGGCC | 900 | XX | 07-MAY-2002; 2002US-0140808. |
| Ds | 773 | ATCACCCCAACATGCCGATGATCTCTCACTGTGAACATGTGATTTTGCCTGGGTA | 832 | PR | 31-MAR-1997; 97WO-US05230. |
| Qy | 901 | TGGGTGCAAGCATTTTACTACCAAGGAAAGCGGCTTGCCTTCGGGGTCCAGGT | 960 | PR | 12-JUN-1998; 98WO-US12456. |
| Ds | 833 | TGGTGGAGAGGCTTTCTTATCCACCTCATGTTGGATTATCCCTTGCCACTCCATTAG | 892 | PR | 14-JUL-1998; 98WO-US14552. |
| Qy | 961 | CCTCAGATATCTCCGCTGGAAGTTCACTACCAACCCACTGGTATAGAGACGAA | 1020 | PR | 28-AUG-1998; 98WO-US17888. |
| Ds | 893 | ATCCCATATGTCCTCTAGAGTCCATATGATAATCCCACTTATGAGGAAGCTTAA | 952 | PR | 10-SEP-1998; 98WO-US18824. |
| Qy | 1021 | ACGACTCTCAGGCATCGCTTGTACTACACAGCAAGCTCGGCGCTTCAACGGGGGA | 1080 | PR | 14-SEP-1998; 98WO-US19093. |
| Ds | 953 | TAGATAATTCGACTGAGGTATTTTACACATGGATATAGGAAATATGATGCTGGG | 1012 | PR | 14-SEP-1998; 98WO-US19094. |
| Qy | 1081 | TATGGAGCTGGAGTGTGTACACCGCAGTATGGCCATCCACCGGAGACCGCT | 1140 | PR | 16-SEP-1998; 98WO-US19177. |
| Ds | 1013 | TGATTGAGCTGGCCTCTGGGTGAGCCTCTTCCATACCCTCCCTCCAGGATGCTGAGT | 1072 | PR | 16-SEP-1998; 98WO-US19330. |
| Qy | 1141 | TCATCTCACTGGCTACTGCAAGGCAAGTGCACCCAGCTGGCACTG-----CCTC | 1191 | PR | 17-SEP-1998; 98WO-US19437. |
| Ds | 1073 | TCCAGTCTGAGGCTCACTGCACCTTTGGAGTGCCTGGAAGAGGCTCTGGAAGCCGAAAGC | 1132 | PR | 07-OCT-1998; 98WO-US21141. |
| Qy | 1192 | CCTCGGATCCACATCTTCGCTCTCAGCTCCACACACACTGACTGGGAGAAAGTGG | 1251 | PR | 29-OCT-1998; 98WO-US22991. |
| Ds | 1133 | CAAGTGGAAATCATGTTGTTGCTGTTCTTCCATGCTCACTGGCTGGCAGAGCATCA | 1192 | PR | 20-NOV-1998; 98WO-US24855. |
| Qy | 1252 | TCACAGTCTGGTCCGGACGCGGAGTGGAGATCGTAACAGGACCAATCACTACA | 1311 | PR | 01-DEC-1998; 98WO-US25108. |
| Ds | 1193 | GGCTCGCTCATTTTCGAAAGGAGGAAATGAAATTACTTGGCTATGATGATTTG | 1252 | PR | 05-JAN-1999; 98WO-US00106. |
| Qy | 1312 | GCCCTCACTTCAGAGATCGCATGTTGAAGAGTGTGCTGGTCCATCCGGAGATG | 1371 | PR | 08-MAR-1999; 98WO-US05028. |
| Ds | 1253 | ACTTCAATTTCCAGAGTTTCAGTATCTAAAGGAGAAACAAATCTTACCAGAGATA | 1312 | PR | 10-MAR-1999; 98WO-US05190. |
| Qy | 1372 | TGCTCATCCTCTGCACTACACACGGAAGACCGGAGTGGCCACAGTGGGGGCT | 1431 | PR | 20-APR-1999; 98WO-US08615. |
| Ds | 1313 | ACCTAATTTAGTGTGCTCAACACGAAGATAGAGCTGAGATGCTGGGAGGAC | 1372 | PR | 14-MAY-1999; 98WO-US10733. |
| Qy | 1432 | TGGGATCTGGAGAGATGTGTCTCACTACGTGCACTACTACCC | 1477 | PR | 02-JUN-1999; 98WO-US12252. |
| Ds | 1373 | TAGCACCAGAGTGAATGTCTCTCATACCTTCTTTATTACCC | 1418 | PR | 08-SEP-1999; 98WO-US20111. |
| RESULT 25 | | | | PR | 13-SEP-1999; 98WO-US20944. |
| ABX89235 | | | | PR | 15-SEP-1999; 98WO-US21090. |
| XX | ABX89235 | standard; cDNA; 2150 BP. | | PR | 05-OCT-1999; 98WO-US23089. |
| XX | AC | | | PR | 30-NOV-1999; 98WO-US28313. |
| XX | XX | | | PR | 30-NOV-1999; 98WO-US28409. |
| XX | 13-MAY-2003 | (first entry) | | PR | 01-DEC-1999; 98WO-US28301. |
| XX | DNA | encoding novel secreted and transmembrane protein PRO5780. | | PR | 02-DEC-1999; 98WO-US28634. |
| XX | Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing; | | | PR | 02-DEC-1999; 98WO-US28551. |
| XX | cardiac insufficiency disorder; cancer; tumour; immune response; | | | PR | 02-DEC-1999; 98WO-US28564. |
| XX | adrenal cortical capillary endothelial growth; c-fos induction; | | | PR | 16-DEC-1999; 98WO-US30095. |
| XX | vascular endothelial growth factor inhibition; VEGF inhibition; | | | PR | 20-DEC-1999; 98WO-US30911. |
| XX | endothelial cell growth inhibitor; T-lymphocytes stimulation; | | | PR | 22-DEC-1999; 98WO-US30720. |
| XX | retinal neurons cell survival; rod photoreceptor cell survival; | | | PR | 30-DEC-1999; 98WO-US31243. |
| XX | mammalian kidney mesangial cell proliferation; Berger disease; | | | PR | 05-JAN-2000; 2000WO-US00219. |
| XX | dermatitis; herpeticiformis; Crohn's disease; chondrocyte proliferation; | | | PR | 06-JAN-2000; 2000WO-US00277. |
| XX | chondrocyte redifferentiation; sports injury; arthritis; gene; ss. | | | PR | 06-JAN-2000; 2000WO-US00376. |
| OS | Homo sapiens. | | | PR | 11-FEB-2000; 2000WO-US03565. |
| XX | US2003017563-A1. | | | PR | 18-FEB-2000; 2000WO-US04341. |
| XX | | | | PR | 18-FEB-2000; 2000WO-US04342. |
| XX | | | | PR | 22-FEB-2000; 2000WO-US04414. |
| XX | | | | PR | 24-FEB-2000; 2000WO-US04914. |
| XX | | | | PR | 01-MAR-2000; 2000WO-US05601. |
| XX | | | | PR | 02-MAR-2000; 2000WO-US05746. |
| XX | | | | PR | 10-MAR-2000; 2000WO-US05841. |
| XX | | | | PR | 15-MAR-2000; 2000WO-US06319. |
| XX | | | | PR | 20-MAR-2000; 2000WO-US07377. |
| XX | | | | PR | 21-MAR-2000; 2000WO-US07532. |
| XX | | | | PR | 30-MAR-2000; 2000WO-US08439. |
| XX | | | | PR | 17-MAY-2000; 2000WO-US13705. |
| XX | | | | PR | 22-MAY-2000; 2000WO-US14042. |
| XX | | | | PR | 30-MAY-2000; 2000WO-US14941. |
| XX | | | | PR | 02-JUN-2000; 2000WO-US15264. |
| XX | | | | PR | 11-AUG-2000; 2000WO-US20710. |
| XX | | | | PR | 21-AUG-2000; 2000WO-US23522. |
| XX | | | | PR | 08-NOV-2000; 2000WO-US23328. |
| XX | | | | PR | 10-NOV-2000; 2000WO-US30952. |
| XX | | | | PR | 01-DEC-2000; 2000WO-US30873. |
| XX | | | | PR | 01-DEC-2000; 2000WO-US32678. |

| | | | |
|----|------|--|------|
| Db | 685 | ATGTAATAAGGTTGAGCCAGTGTATACAGAGAGGCCATGAGAGTCTGTGTGACCACTCC | 744 |
| Qy | 784 | AAAGTCTTCAGTGCGCCCCCGA---GATGGACAGGCTGCCACACTTCAGCGGGCCCTGGC | 840 |
| Db | 745 | TGCTCTATCAGTGCAGCAACAATTTAAGCAGAGGTTCTGAGTCCGGCCACGAGTGTCT | 804 |
| Qy | 841 | ACTCCAAGATGAACCCGACCCGCTCAACTATGCGCGCACTGTGTGCGCGCTGGGCC | 900 |
| Db | 805 | ATCACCCCAACATGCCGATGATTCCTCACCTGTGAACACTGTGATTTTGTGCTGGGCTA | 864 |
| Qy | 901 | TGGGTGCCAAGCATTTTACTACCCAGAGGAGCGGCTTGCCTTCGGGGTTCAGGCT | 960 |
| Db | 865 | TTGGTGGAGAGGCTTTTCTTATCACTCATGTGTGGATTATCCCTTGGCATCTCCATTAG | 924 |
| Qy | 961 | CCTCAGATATCTCGCCTGGAAGTTCACTACCAACCCCACTGTGTATAGAAGACGAA | 1020 |
| Db | 925 | ATCCGCATTTATGTCTCTAGAACTCCATATGATTAATCCCACTTATGAGGAAGCTTAA | 984 |
| Qy | 1021 | ACGACTCTCAGGCATCCGCTTGTTACTACAGGCCAAGCTGGCGCTTCAACGGGGGA | 1080 |
| Db | 985 | TAGATAATTCTGGACTGAGGTTATTTTAAACAATGGATATAGGAATAATATGATCGTGGG | 1044 |
| Qy | 1081 | TCTGGAGCTGGACTGTGTATACGCCAGTGATGGCCATTCCACCAAGGAGACCGCT | 1140 |
| Db | 1045 | TGATGAGGCTGGCCTCTGGGTGAGCCTCTTCCATACCATCCCTCCAGGATGCTCGAT | 1104 |
| Qy | 1141 | TCATCCTCACTGGTACTGTCAGCGACAGTGCACCCAGCTGGCACTG-----CCTC | 1191 |
| Db | 1105 | TCCAGTCTGAGGTCATGCACTTTGAGTGCCTGGAAGAGGCTCTGGAAGCGAANAAGC | 1164 |
| Qy | 1192 | CCTCGGGATCCACATCTTGCCCTCTCAGCTCCACACACACACTGACCTGGAGAAAGTGG | 1251 |
| Db | 1165 | CAAGTGAATTCATGTGTGTTGTCTGTTCTTCTCCATGCTCACTGGCTGGCAGAGCATCA | 1224 |
| Qy | 1252 | TCAGTGTGTTCCGGGAGCGCGGAGTGGAGATCGTGAACCAAGCAATCACTACA | 1311 |
| Db | 1225 | GGCTGCCTCATTTTCGAAAGGGGAAGAAATTAATTAATTCATGCTATGATGATTTTG | 1284 |
| Qy | 1312 | GCCCTCACTTCCAGGAGATCCGATGTTGAAGAAGGTCGTGCGTCCATCCGGGAGATG | 1371 |
| Db | 1285 | ACTTCAATTTCCAGGAGTTTCAGTATCTAAAGGAAGAAACAACTTTACCAAGAGATA | 1344 |
| Qy | 1372 | TGCTCATCACTCTCTGCAGTACAAACAGGAAGACCGGAGCTGGCCACAGTGGGGGCT | 1431 |
| Db | 1345 | ACCTAATTACTGAGTGTGCTTACACACGAAGATAGCTGAGATGACTTGGGGAGGAC | 1404 |
| Qy | 1432 | TCGGGATCTCGGAGGAGATGTGTCAACTACGTGCATCACTACCC | 1477 |
| Db | 1405 | TAAACACACGAGAGTGAATGTGTCTCTCACTACCTCTTTTATTACC | 1450 |

RESULT 27

RESOLUT 2/
AAX77115
ID AAX77115 standard; DNA; 1635 BP.

XX
AC

XX
DT 03-AUG-1999 (first entry)

XX
DE GC6 gene ORF sequence.

Cellular senescence; modulator; G66 gene; senescent gene expression; pG6C6; human; ss.

XX
OS
Homo sapiens.

XX
PN
WO9925878-A2.

XX
PD 27-MAY-1999.

XX
PF 19-NOV-1998: 98WO-IIS24996

19-NOV-1997: 97JIS-0974180
XX 50JMS-0024350

XX
PA (GERO-) GERON CORP.

XX
PI Funk W;

XX
DR WPI; 1999-347496/29.
DR P-PSDB; AAY21556.

XX
PT
PT
PT
PT

New human GC6 gene, useful for identifying agents for treating diseases and/or conditions associated with cell senescence

XX
PS Claim 2; Page 18; 79pp; English.

The invention relates to methods for modulating and identifying cellular senescence. Recombinant expression vectors comprising a recombinant polynucleotide corresponding to a polynucleotide in a human G6c gene, are useful for altering senescent gene expression. The vectors and host cells comprising the vectors are useful for identifying agents that prevent or modulate senescent gene expression. The polynucleotides are useful for producing the protein, pGC6 and nucleic acid derivatives. The proteins encoded are useful for raising antibodies specific for pGC6, which are useful for isolating pGC6, and for detecting cells comprising pGC6 in complex cell mixtures. The characterization of the polynucleotides enable the identification of therapeutic agents that identify and distinguish between young and senescent cells. This enables treatment of aging diseases induced or exacerbated by cellular senescence.

Sequence 1635 BP; 475 A; 355 C; 355 G; 450 T; 0 other;
SQ
XX

| | | | | |
|---------------------------|-------|--------------------|------------|--------------|
| Query Match | 5.2% | Score 141.8; | DB 20; | Length 1635; |
| Best Local Similarity | 49.6% | Pred. No. 3.7e-21; | | |
| Matches 427; Conservative | 0; | Mismatches 422; | Indels 12. | |

| | | | |
|----|------|--|------|
| QY | 629 | CATGAGGTCCAAAGTCCCAATATCCAGATCCCGCAGGAGACACAGTACTGGTGCTA | 688 |
| Db | 354 | CTTTGATCTGGTAAATCAGAGCTGCCCATCCCAACAAGATACAAATATTGGTGCCA | 413 |
| QY | 689 | CATTAAAGAGCTTCCAAAGGGCTTCTTCGGCACCAACATTTCAAGTACGAGCCCATCGT | 748 |
| Db | 414 | AATGTTTAAAGATTCCTGTGTTCAAGAAAGCATCATGTAAATAAAGTTTGAGCCAGTGT | 473 |
| QY | 749 | CACCAAGGGCAATCAGGCCCTTGTCCACACATGGAGGTCTTCCAGTGGCCCCCGA--- | 805 |
| Db | 474 | ACAGAGAGGCCATGAGAGTCTGGTGACCAACATCTCTGTCTATCATGTGAGCAACAACTT | 533 |
| QY | 806 | GATGACAGCGTCCCCCACTTCCAGCGGGCCCTCGCACTCCAAGATGAACCCGACCGCCT | 865 |
| Db | 534 | TAAOCACAGCGTCTCGAGTCCCGGCCACAGGTGCTATCACCCCAATGCCCGATGCAAT | 593 |
| QY | 866 | CAACTACTGCGGCACATGCTGCGCGCCTTGGGCGCTGGGTGCMAAGGCATTTTACTACCC | 925 |
| Db | 594 | CCTCACCTGTGAACACTGTGATTTTTCCTGGGCTATTGGTGGAGAGGGCTTTCTTATCC | 653 |
| QY | 926 | AGAGAAAGCGCGCTTGCCCTTGGGGGTCCAGGCTCCTCCAGATATCTCCGCGCTGGAGT | 985 |
| Db | 654 | ACCTCATGTTGGATATCTCTTGGCACTCCATTAGATCCGCATTATGTGCTCTAGAGT | 713 |
| QY | 986 | TCACTACCAACCCACTGGTGATAGAAGACGAACGACTCTCAGGCATCCCGCTTGTA | 1045 |
| Db | 714 | CCATTATGATAATCCCACTTATGAGGAAGGCTTAATAGATAATCTGGACTGAGTTATT | 773 |
| QY | 1046 | CTACACAGCCAAGCTCGGGCTTCAAACGGGGATCATGAGCTGGGACGTGGTGTAAC | 1105 |
| Db | 774 | TTACACATGGATATAAGGAATATGATGCTGGGGTGATTGAGGCTGGCCTCTGGGGTGAG | 833 |
| QY | 1106 | GCCAGTAGTGGCAATTCACACCGGGAGACCGCCTTCATCTCTACTGCTACTGCACGGA | 1165 |
| Db | 834 | CCTCTTCCATACCATCCCTCCAGGATGCTTGAGTTCAGTCTCAGGGTCACTGCATTT | 893 |
| QY | 1166 | CAAGTGCACCCAGCTGGCACTGCTCCC-----TCGGGATCCACATCTTCGCCTC | 1216 |
| Db | 894 | GGAGTGCCTGGAAAGGCTCTGGAAAGCCGAAAGCAAGTGGAAATTCATGTTTGTGCTG | 953 |

Human; full length cDNA; cDNA synthesis; oligo-capping; ss.
Homo sapiens.
EP1130094-A2.
05-SEP-2001.
07-JUL-2000; 2000EP-0114089.
08-JUL-1999; 99JP-0194486.
11-JAN-2000; 2000JP-0118774.
02-MAY-2000; 2000JP-0183765.
(HELI-) HELIX RES INST.
Ota T, Nishikawa T, Isogai T, Hayashi K, Ishii S, Kawai Y;
Wakamatsu A, Sugiyama T, Nagai K, Kojima S, Otsuki T, Koga H;
WPI; 2001-524255/58.
P-PSDB; AAM93393.
830 Primers useful for synthesizing full length cDNA clones and their
use in generic manipulation -
Claim 8; SEQ ID NO 2985; 1380bp + sequence listing; English.
The invention relates to primers for synthesizing full length cDNA
clones. 830 cDNA molecules encoding a human protein have been
isolated and nucleotide sequences of 5' and 3' ends of the cDNA
molecules have been determined. Primers for synthesizing the full length
cDNA are useful for clarifying the function of the protein encoded by
the cDNA. The full length clones were obtained by construction of full
length enriched cDNA libraries that were synthesised by the oligo-capping
method. The primers enable the production of the full length cDNA easily
without any special methods. The present sequence is a full length
human cDNA of the invention.
Note: The sequence data for this patent did not form part of the printed
specification, but was obtained in CD-ROM format directly from EPO.
SQ Sequence 2762 BP; 760 A; 586 C; 569 G; 847 T; 0 other;
Query Match 5.2%; Score 141.8; DB 22; Length 2762;
Best Local Similarity 49.6%; Pred. No. 4.2e-21;
Matches 427; Conservative 0; Mismatches 422; Indels 12; Gaps 2;
QY 629 CATGAGGTCCAGCTCCCAATATCCAGATCCCGAGGAGGACACGACTACTGGTCTA 688
DB 381 CTTTGATCTGGTAAATCAGGAGCTCCCATCCCAACAAAGATACACATATGGTCCA 440
QY 689 CATTAAAGAGCTCCAAAGGGCTTCTCGGCACACCATATCAAGTACGAGCCCATCGT 748
DB 441 AATGTTTAAAGATTCTGTGTTCCAAAGAAAGCATCATGTAATAAGGTTGAGCCAGTAT 500
QY 749 CACCAAGGGCAATGAGGCGCTTGTCCACCATGGAAGTCTCCAGTGGCGCCCGA--- 805
DB 501 ACAGAGAGGCGATGAGAGTCTGGTGACACCATCTCTATCAGTGCAGCAACACTT 560
QY 806 GATGAGAGGCTCCCGCATCTCAGCGGGCCCTGGACTCCAAGATGAAACCGACCGCT 865
DB 561 TAAAGACAGCGTTCTGAGTCCGGCCACGAGTGTATATACCCCAACATGCCCGATCAT 620
QY 866 CAATCTATGCGCGCATGCTGGCGCTGGCGCTGGCGCTGGCGCTGGCGCTGGCGCT 925
DB 621 CCTCACCTGTGAACTGTGATTTTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCT 680
QY 926 AGAGGAGCGCGCTTGGCTTGGGGGTCCAGGGTCTCCAGATATCTCCGCTGGAAGT 985
DB 681 ACCTCATGTTGGATTATCTCCCTGGCACTCCATTAGATCCGATATATGCTCTTAGAGT 740
QY 986 TCACTACCAACCCACTGGTGATAGAGGAGCAAGAGCACTCTCAGGCATCCGCTTGA 1045
DB 741 CCATTATGATATCCCACTTATGAGGAGGCTTATAGATAATCTCGGACTGAGGTATT 800

QY 1046 CTACACGCCAAGCTCGGCGCTTCAACGCGGGGATCATGGAGCTGGGACTGGTGTACAC 1105
DB 801 TTACACAATGGATATAGGAAATATGATGCTGGGGTGAITTAGGCTGGCTCTGGGTGAG 860
QY 1106 GCCAGTGATGGCCATTTCCACCACCGGAGACCGCCTTTCATCTCAGTCTGCTACTGACCGGA 1165
DB 861 CCTCTTCCATACCATCCCTCCAGGATGCTGAGTTCAGTCTGAGGGTCACTGCACTTT 920
QY 1166 CAAGTGGACCCAGCTGGCAGTCCCTCC-----TCGGGATCCACATCTTCGCTC 1216
DB 921 GGAGTGGCTGGAAGAGGCTCTGGAAGCCGAAAGCCAAAGTGAATTCATGTTTGTCTG 980
QY 1217 TCAGCTCCACACACACCTGACTGGGAGAAAGTGGTGCACAGTCTGGTCCGGGACGGCCG 1276
DB 981 TCTTCTCCATGCTCACCCTGGCTGGCAGAGCATCAGGCTCGCTCATTTTCGAAAGGGAA 1040
QY 1277 GGAGTGGAGATCGTGAACCCAGGACATCACTACGCGCTCACTCCAGGAGATCCGCA 1336
DB 1041 GGAATGAAATTTACTTGCCTATGATGATGATTTTGACTTCAATTTCCAGGAGTTTCAGTA 1100
QY 1337 GTTGAAGAAGTCTGTGCGTCCATCCGGGAGATGCTCATCAGTCTGCAAGTACAA 1396
DB 1101 TCTAAGGAGAAACAACAACTTACAGGAGATAACCTAAATTAAGTGTGCTGCTACAA 1160
QY 1397 CACGGAAGCCGGAGCTGGCCACAGTGGGGGCTTCGGGATCCCTGGAGGAGATGTGCT 1456
DB 1161 CACGGAAGATAGAGCTGAGATGACTTGGGAGGAGTAAACACAGGAGTGAATGTGCT 1220
QY 1457 CAACTAGTGCATCTATCC 1477
DB 1221 CTATACCTCTTTATTATCC 1241

RESULT 30
AAAX77114
ID AAAX77114 standard; DNA; 2970 BP.
XX AC AAAX77114;
XX DT 03-AUG-1999 (first entry)
XX DE DNA sequence of GC6 gene.
XX KW Cellular senescence; modulator; GC6 gene; senescent gene expression;
XX KM PGC6; human; ss.
XX OS Homo sapiens.
XX PN WO925878-A2.
XX PD 27-MAY-1999.
XX PF 19-NOV-1998; 98WO-US24996.
XX PR 19-NOV-1997; 97US-0974180.
XX PA (GERO-) GERON CORP.
XX PI Funk W;
XX DR WPI; 1999-347496/29.
XX DR P-PSDB; AAY21556.
XX PT New human GC6 gene, useful for identifying agents for treating
XX PT diseases and/or conditions associated with cell senescence
XX PS Claim 1; Page 15-17; 79pp; English.
XX CC The invention relates to methods for modulating and identifying cellular
XX CC senescence. Recombinant expression vectors comprising a recombinant
XX CC polynucleotide corresponding to a polynucleotide in a human GC6 gene, are
XX CC useful for altering senescent gene expression. The vectors and host cells

comprising the vectors are useful for identifying agents that prevent or modulate senescent gene expression. The polynucleotides are useful for producing the protein, pGC6 and nucleic acid derivatives. The proteins encoded are useful for raising antibodies specific for pGC6, which are useful for isolating pGC6, and for detecting cells comprising pGC6 in complex cell mixtures. The characterization of the polynucleotides enable the identification of therapeutic agents that identify and distinguish between young and senescent cells. This enables treatment of aging diseases induced or exacerbated by cellular senescence.

XX Sequence 2970 BP; 829 A; 623 C; 586 G; 931 T; 1 other;

Query Match 5.2%; Score 141.8; DB 20; Length 2970;
Best Local Similarity 49.6%; Pred. No. 4.3e-21;
Matches 427; Conservative 0; Mismatches 422; Indels 12; Gaps 2;

QY 629 CATGAGGTCCAAAGCTCCCAATATCCAGATCCCGCAGGAGACCACTACTGGTGCTA 688
Db CTTTGATCTGTAATAGGAGCTCCCATCCCAACAAAGATACCAATATGTTGGTCCCA 643
QY 689 CATTAAAGAGCTTCCAAAGGGCTTCTCTCGGCACCAATATCAAGTACGAGCCCATCGT 748
Db AATGTTTAAAGATCTCTGTTCCAGAAAGCATCATGTAATAGGTTGAGCCAGTAT 703
QY 749 CACCAAGGGCAATGAGGCCCTTTGCCACCATGGAAGTCTTCCAGTCGCGCCCGCA --- 805
Db ACAGAGAGGCCATGAGAGTCTGGTGCACCATCTCTCTATCAGTCGAGCAACACTT 763
QY 806 GATGACAGCTCCCACTTCAGCGGCCCTCGGACTCCAAGTGAACCGACCGCT 865
Db TAACGACAGCGTTCTGGAGTCCGGCCACGAGTGCTATCACCCCAATGCGCGATGCA 823
QY 866 CAATCTACTGCGCCCACTGCTGGCGCTGGGCTGCGCAAGGCAATTTACTACCC 925
Db CCTCACCTGTGAACGTGATTTTGTCTGGCTATGTTGGAGAGGGCTTTCTTATCC 883
QY 926 AGAGAACCGCGCTTGGCTTGGGGGTCCAGGGTCTTCCAGATATCTCCGCTGGAGT 985
Db ACCTCATGTTGGATATCCCTTGGCACTCCATAGATCCGATATGTCCTCTAGAGT 943
QY 986 TCATACACACCACTGGTGATAGAGGAGCAAGCACTCTCCAGCATCCGCTTGTGA 1045
Db CCATTATGATATCCCACTTATGAGGAAGGCTTAATAGATAATCTCGGACTGAGGTTAT 1003
QY 1046 CTACACCAAGCTCGCGCTTCAACCGGGGATCATGGAGCTGGGACTGGGTGTACAC 1105
Db TTACCAATGATATAGAAATATGATGCTGGGGTATTGAGGCTGCGCTCTGGGTGAG 1063
QY 1106 GCCAGTGAGGCCATTTCCACACGGGAGACCGCCTTCACTCTGCTACTGACGGA 1165
Db CCTCTTCCATACCATCCCTCCAGGGATGCTGAGTTCAGTCTGAGGGTCACTGCATTT 1123
QY 1166 CAAGTGACCCAGCTGGCACTGCTCC-----TCCGGATCCACATCTTCGCTC 1216
Db GGAGTGCTGGAAGAGGCTCTGGAAGCGGAAAGCAAGTGGAAATCATGTTGTTGCTGT 1183
QY 1217 TCAGTCTCCACACACACTGATGGGAGAAAGTGTGTACAGTGTGTTCCGGGAGCGCG 1276
Db TCTTCTCATCTCTACCTGGCTGGCAGAGGATCAGGCTGCTCATTTCCGAAGGGAA 1243
QY 1277 GGAGTGGAGATCGTGAACACGAGCAATCACTACAGCCCTCACTTCCAGGAGATCCGCAT 1336
Db GGAATGAATTAATCTTGCTATGATGATGATTTTGACTTCAATTTCCAGGAGTTTCAGTA 1303
QY 1337 GTTGAAGAGTGTGTGCTTCATCCGGGAGATGTGCTCATCATCTCTCCAGCTACAA 1396
Db TCTAAGGAAGAACAAACAATCTTACCAGGAGATAACCTTAATTAAGTGTGCTACAA 1363
QY 1397 CACGAGACCGGAGCTGGCCACAGTGGGGGCTTCGGGATCTCGGAGGAGTGTGTGT 1456
Db CACGAAGATAGAGCTGATGATCTTGGGGAGGACTAAGCACCAGGAGTGAATGTGTCT 1423
QY 1457 CAACTACGTGCATCTACTACCC 1477

Db 1424 CTCATACCTCTCTTATTACCC 1444
RESULT 31
AAA26369
ID AAA26369 standard; cDNA; 2184 BP.
XX AAA26369;
AC AAA26369;
DT 29-JUN-2000 (first entry)
XX Human secreted protein gene 24 SEQ ID NO:34.
DE Human; secreted protein; diagnosis; cytostatic; immunosuppressive;
XX antiHIV; antiinflammatory; nontropic; neuroprotective; antiallergic;
KW osteopathic; antiarthritic; antibacterial; antidiabetic; antiasthma;
KW antiporiatic; cardiac; gene therapy; cancer; neurological disorder;
XX immune disease; inflammation; blood disorder; tumour; ss.
XX Homo sapiens.
OS
XX WO200006698-A1.
PN 10-FEB-2000.
PD 29-JUL-1999; 99WO-US17130.
PF 30-JUL-1998; 98US-0094657.
PR 05-AUG-1998; 98US-0095486.
PR 06-AUG-1998; 98US-0095454.
PR 06-AUG-1998; 98US-0095455.
PR 12-AUG-1998; 98US-0096319.
XX (HUMA-) HUMAN GENOME SCI INC.
XX Komatsoulis GA, Rosen CA, Ruben SM, Duan R, Moore PA, Shi Y;
PI Lafleur D, Wei Y, Ni J, Florence KA, Young PE, Brewer LA;
PI Soppet DR, Endress GA, Ebner R, Olsen HS, Mucenski M;
XX WPI: 2000-195282/17.
DR P-PSDB; AAY91474.
XX New isolated human genes and the secreted polypeptides they encode,
PT useful for diagnosis and treatment of e.g. cancers, neurological
PT disorders, immune diseases, inflammation or blood disorders -
XX Claim 1; Page 388-389; 634pp; English.
XX The polynucleotide sequences given in AAA26346 to AAA26458 encode the
XX human secreted proteins given in AAY91451 to AAY91691. The human secreted
XX proteins can have activities based on the tissues and cells they are
XX expressed in. Examples of the activities are: cytostatic;
XX immunosuppressive; antiHIV; antiinflammatory; nontropic; neuroprotective;
XX antiallergic; osteopathic; antiarthritic; antibacterial; antidiabetic;
XX antiasthma; antiporiatic; and cardiac. The polynucleotides and their
XX corresponding secreted proteins are useful for preventing, treating or
XX ameliorating medical conditions, e.g. by protein or gene therapy. Also
XX pathological conditions can be diagnosed by determining the amount of the
XX proteins in a sample or by determining the presence of mutations in the
XX polynucleotides. Specific uses are described for each of the
XX polynucleotides, based on which tissues they are most highly expressed
XX in, and include developing products for the diagnosis or treatment of
XX cancer, tumours, neurodegenerative disorders, developmental abnormalities
XX and foetal deficiencies, blood disorders, diseases of the immune system,
XX autoimmune diseases, hepatic and renal disease, inflammation,
XX allergies, Alzheimer's and behavioural disorders, schizophrenia,
XX osteoporosis, arthritis, infections, AIDS, spinal cord injuries,
XX transplant rejection, diabetes, asthma, sepsis, acne, psoriasis,
XX cardiovascular disorders, reproductive disorders, gastrointestinal
XX disorders, respiratory disorders and metabolic disorders. The proteins
XX or polynucleotides can also be used as food additives or preservatives.
XX The proteins are also useful for identifying their binding partners.

CC AAA26337 to AAA26345 and AAY91450 are sequences used in the
CC exemplification of the present invention.

SQ Sequence 2184 BP; 599 A; 509 C; 506 G; 570 T; 0 other;

| Query Match | 5.2%; | Score 140.6; | DB 21; | Length 2184; | |
|-----------------------|-----------------|--|--|-------------------------|-----|
| Best Local Similarity | 47.5%; | Pred. No. 7.2e-21; | | | |
| Matches 620; | Conservative 0; | Mismatches 664; | Indels 21; | Gaps 6; | |
| QY | 187 | GCTACACCAGGAGGCATTCATTTCCAGCTCTGGTGC | GAGAGGCTCAAGCTGCGCTCC | 246 | |
| DB | 137 | GCTGGAGCCAGCGGGCAGCCAGATGCGCTTCGGCTCCAGGTGCGCATCGTCAGGCTACG | 196 | | |
| QY | 247 | TG---TTTGGGATGTC | CCGACCGTGGCGAGCTTGAGAA | CGCAGATCTCGTGTGTCTCTGGA | 303 |
| DB | 197 | TGGGCTTCGGCTTCTCGCCCA | CGGGGCCATGCGTCCGCGCAGATCGT | CGTGTGGCGGGG | 256 |
| QY | 304 | CGATGGGACACTGCTCTATTTTGGCGAGCGCTGGAGTGAC | GAGAGGGGCGAGATCCACC | 363 | |
| DB | 257 | TGGCCCA | CGGGCGGCTTACCTCCAGGATATTTTACAAATGCAATAGAGATGTGAAA | 316 | |
| QY | 364 | TGGATCCCAGCAGGACTAC | CAGCTGCTGCGAGGTGCAGAGGACCC | CAGAGGCGCTGACC | 423 |
| DB | 317 | AAGATGCTCAGCAAGATTACCATCT | PAGAAATATGCCATGGAATAAGCACACACACATAA | 376 | |
| QY | 424 | TGCTTTTCAAGAGGCCCTTTGGCACTTCGGACCC | CAAGGATTACTCTATTGAAAGAGCGCA | 483 | |
| DB | 377 | TTGAATTTAC | CAGAGAGCTGCATACATGTGCATATAAATGACAAGAGTATTAACGGATAGCA | 436 | |
| QY | 484 | CTGTCCACTTGGTCTA | CGGGATCTCTGGAGGAGCGCTTCCGCTCACTCGAGGCCCATCAACG | 543 | |
| DB | 437 | CTGTGAGAGTGATCTGGGCGCTTACCA | CCATGAAGATGCAGGAGAAGCTGGTCCCAAGTACC | 496 | |
| QY | 544 | GCTCGGGCTCGAGATGGGCTGCAGAGGGTG | CAGCTCTTGAAGCCCAATATCCCGAAC | 603 | |
| DB | 497 | ---ATGACTCCAATAGGGGCAC | AAAGTTTTCGGGTTATTTGAATCTCTGAGAAAC---TA | 550 | |
| QY | 604 | CGGAGTTCCCTCAGACGGGTGC | ACCATGGAGGTCCAAGCTCCCAATATCCAGATCCCCA | 663 | |
| DB | 551 | GTGTGCTATCTACAGCGCTTACCATCTTGTATCTGGTAAATCAGGAGCTCCCATCCCCA | 610 | | |
| QY | 664 | GCCAGGAGACCACTACTGTGTGTACATTAAGGAGCTTCCAAAGGCTTCTCTCGGCACC | 723 | | |
| DB | 611 | ACAAAGATACACATATTTGTGTC | CAATGTTAAGATTCTGTGTTTCCAAGAAAGCATC | 670 | |
| QY | 724 | ACATTATCAAGTAGCAGGCCCATCGTCA | CCAGGGCAATGAGGCCTTGTCCACCACATGG | 783 | |
| DB | 671 | ATGTAATAAAGGTTGAGCCAGTGATACAGAGAGGCCATGAGAGTCTGGTGCCACATCC | 730 | | |
| QY | 784 | AAGTCTTCCAGTGC | CGCCCCCGA--GATGCACAGCGTCCCCACATTCACGGGGCCCTGGG | 840 | |
| DB | 731 | TGCTCTATCAGTCAGCAACAACTTTTAA | CGCAGCGTTCTGGAGTCCCGGCCACGAGTGCT | 790 | |
| QY | 841 | ACTCCAGATGAACCGGACCGGCTCAACTACT | GTGCCGCCACGTGTGGCGCGCTGGGCCC | 900 | |
| DB | 791 | ATCACCCCAACATGCCCGATGCAATTCCTCACCTGTGAAACTGTGATTTTGTCTGGGCTA | 850 | | |
| QY | 901 | TGGGTGCCAAGGCATTTTACTACCCAGAGAAAGCGGCGCTTCGCTTCGGGGTCCAGGT | 960 | | |
| DB | 851 | TTGGTGAGAGGGCTTTTCTTATCCACCTCATGTTGGATTATCCCTTGGCATTCATTTAG | 910 | | |
| QY | 961 | CCTCCAGATATCTCCGCTTGGAGTTTCACTAC | CAACCCACTGTGTGTAGAAGGACGAA | 1020 | |
| DB | 911 | ATCCGATTAATGTGCTCTAGAGTCCCATTTATGATAATCCCACTTATGAGGAAGGCTTAA | 970 | | |
| QY | 1021 | ACGACTCTCAGGCATCCGCTTGTACTACA | CAGCCCAAGCTCGGGCGCTTCAACGGGGGA | 1080 | |
| DB | 971 | TAGATAAATCTGGA | CTGAGGTTATTTTACACATCGATTAAGGAAATATGATGCTGGG | 1030 | |
| QY | 1081 | TCAATGAGCTGGGATCTGGTGATAC | CGCCAGTGATGGCCATTTCCACCAGGAGACCGCCT | 1140 | |
| DB | 1031 | TGATTTGAGCTGGCTCTGGGTGAGCCTCTTCCATACCATCTCCCTCCAGGATGCTCAGT | 1090 | | |

expressed in. Examples of the activities are: cytostatic; immunosuppressive; antiHIV; antiinflammatory; neurotropic; neuroprotective; antiallergic; osteopathic; antiarthritic; antibacterial; antidiabetic; antiasthma; antipsoriatic; and cardiant. The polynucleotides and their corresponding secreted proteins are useful for preventing, treating or ameliorating medical conditions, e.g. by protein or gene therapy. Also pathological conditions can be diagnosed by determining the amount of the proteins in a sample or by determining the presence of mutations in the polynucleotides. Specific uses are described for each of the polynucleotides, based on which tissues they are most highly expressed in, and include developing products for the diagnosis or treatment of cancer, tumours, neurodegenerative disorders, developmental abnormalities and foetal deficiencies, blood disorders, diseases of the immune system, autoimmune diseases, hepatic and renal disease, inflammation, allergies, Alzheimer's and behavioural disorders, schizophrenia, osteoporosis, arthritis, infections, AIDS, spinal cord injuries, transplant rejection, diabetes, asthma, sepsis, acne, psoriasis, cardiovascular disorders, reproductive disorders, gastrointestinal disorders, respiratory disorders and metabolic disorders. The proteins or polynucleotides can also be used as food additives or preservatives. The proteins are also useful for identifying their binding partners. AAA26337 to AAA26345 and AAY91450 are sequences used in the exemplification of the present invention.

Sequence 2189 BP; 602 A; 505 C; 509 G; 573 T; 0 other;

Query Match 5.1%; Score 138.4; DB 21; Length 2189;
Best Local Similarity 46.9%; Pred. No. 2.2e-20;
Matches 614; Conservative 0; Mismatches 671; Indels 23; Gaps 5;

187 GCTACACCCAGGAGCCATCCATTCCAGCTCTCGGTGGGAGGCTCAAGGCTGGGTCC 246
144 GCTGGAGCAGCGGGGAGCCAGATCGCTTCCGCTCCAGTGGCAGCTCGAGCTACG 203
247 TG---TTTGGAGTCTCGACCGTGGAGCTTGAGACGAGATCTCGTGGTCTCTGGA 303
204 TGGCTTCGGCTTCTCGCCACCGGGGCCATGGCGTCGCGGAGATCGTGTGGGCGGG 263
304 CCGATGGGGACATGCTCTATTTCGGGACGCTCGAGTGACAGAGGGGAGATCCACC 363
264 TGGCCACGGGCGGCTACCTCCAGGATTTTACAAATGCAATAGAGATTGAATA 323
364 TGGATCCCGACGAGACTACAGCTGTGAGGTGACAGAGACCCAGAGAGGCTGACCC 423
324 AAGATGCTCAGCAAGATTACCATCTAGAATATGCCATGGAATAAGACACACATAA 383
424 TGCTTTTCAGAGGCCCTTTGGCACCTCGGACCCAGAGATTACCTATTGAAGACGCA 483
384 TTGAATTTACAGAGAGCTGCATACATGTGACATAAATGACAGAGTATAACGGATAGCA 443
484 CTGTCCACTTGGTCTACGGGATCTGGAGGAGCGGTTCCGGTCACTGGAGGCCATCAACG 543
444 CTGTGAGAGTGATCTGGGCTTACCACCATGAAGATGAGAGAGCTGGTCCCAGTACC 503
544 GCTCGGGCTGCAGATGGGGCTGCAGAGGGTGACAGTCTTGAAGCCCAATATCCCCGAAC 603
504 A---TGACTCCAAATAGGGGACCAAGAGATTTCGGTATTGAATCTTGAGAAAC---TA 557
604 CGGAGTTGCCCTCAGACCGGTGACCATGGAGGTCCAGGCTCCCAATATCCAGATCCCA 663
558 GTGTGCTATCTACAGCTTACCATACCTTGTATCTGGTAAATCAGGACGTCCTCCATCC 617
664 GCCAGGAGACCACTACTGTGTGTACATTAAGGAGCTTCCAAAGGGTCTCTCGGCACC 723
618 ACAAGATACACATATTTGGTGCCAAATGTTAGATTCCTGTGTTCAAGAAAGATC 677
724 ACATTATCAAGTACGAGCCCATCTGACCAAGGCAATGAGGCCCTTTGTCCACCACTGG 783
678 ATGTAATAAGGTTGAGCCAGTGTATACAGAGAGGCCCATGAGAGTCTGTGCAACCATCC 737
784 AAGTCTTCCAGTGGCCCCCGAGATGGACAGCTGCCCCACTTCAGCGGGGCC-----CTG 838
738 TGCTCTATCAGTGCGACCAACAACTTTAAACGACAGCGTTCTTGGAATCCGGGACGAAATTG

Qy 839 CGACTCCAAGATGAACCCGACCCCTCAACTACTGCGCCACGCTGCTGGCCGCTGGCC 898
Db 798 CTATCACCCCAACATGCCGATGATCTCTCACTGTGAAACTGTGATTTTGGCTGGCC 857
Qy 899 CTTGGTGGCAAGGATTTTACTACCCAGAGAGAGCGGCTTGGCTTGGGGGTTCAGG 958
Db 858 TATTGGTGGAGAGGGCTTTTCTTATCCACCTCATGTTGGATTATCCCTTGGCACTCCATT 917
Qy 959 GTCTCCAGATATCTCGGCTTGGAGTTTCACTACCAACCCACTGGTGTAGAGGACG 1018
Db 918 AGATCCGATATGCTCTCTAGAGTCCATTATGATTAATCCCACTTATGAGGAGGCTT 977
Qy 1019 AAACGACTCTCAGGATCCGCTTGTACTACACAGCAAGCTGGGGCTTCAACGCGGG 1078
Db 978 AATAGATAAATCTCGACTGAGGTTTATTTACACAATGATATAAGGAAATATGATGCTGG 1037
Qy 1079 GATCATGGAGCTGGGACTGGTGTACAGCCAGTGTGATGCCATTCACACCGGAGACCGC 1138
Db 1038 GGTGATTTGAGGCTGGGCTCTGGGTGAGCCTTCTCCATACCATCCCTCCAGGGATGCTGA 1097
Qy 1139 CTTTCATCTCAGCTGCTGCTGACGAGCAAGTGACCCAGCTGGCAGCTG-----CC 1189
Db 1098 GTTCCAGTCTGAGGCTCACTGCACTTTGGAGTGTCTGGAAGAGGCTCTGGAAGCCGAAAA 1157
Qy 1190 TCCCTCCGGGATCCACATCTTTCGCTCTCAGCTCCACACACACCTGACTGGGAGAAAGGT 1249
Db 1158 GCCAAGTGAATTCATGTTTGTGTTCTTCTCCATGCTCACCTGGCTGGCAGAGGAT 1217
Qy 1250 GGTACAGTGTGCTGGGACGCGCGGAGTGGGAGATCGTGAAACAGGACAATCACTA 1309
Db 1218 CAGGCTCGCTCATTTTCGAAAAGGAGAAATGAAATTTACTTGCCTATGATGATTTT 1277
Qy 1310 CAGCCCTCACTTCAGGAGATCCGATGTTGAAGAAGTCTGTGCGTCCATCCGGGAGA 1369
Db 1278 TGACTTCAATTTCCAGGAGTTTCAGTATCTAAAGAGAGAAACAAATCTTTACCAGGAGA 1337
Qy 1370 TGTGCTCATCACTCTGACGCTACAAACAGGAGAGCGGAGCTGGCCACAGTGGGGGG 1429
Db 1338 TAACCTAATTTACTGAGTGTGCTACACACAGAAAGATAGAGCTGAGATGACTTGGGGAGG 1397
Qy 1430 CTTGGGATCTGTGAGGAGATGTTGTCAACTAGCTGCACTACTACCC 1477
Db 1398 ACTAAGCACCAGGAGTGAATGTCTCTCATACCTTCTTTATTACCC 1445

RESULT 33

AA159575

ID AA159575 standard; cDNA; 1233 BP.

XX AC AA159575;

XX DT 22-OCT-2001 (first entry)

XX DE Human polynucleotide SEQ ID NO 1778.

XX KW Human; neurotropic; immunosuppressant; cytostatic; gene therapy; cancer;

XX KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;

XX KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;

XX KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;

XX KW leukaemia; ss.

XX OS Homo sapiens.

XX PN WO200153312-A1.

XX PD 26-JUL-2001.

XX PP 26-DEC-2000; 2000WO-US34263.

XX PR 21-JAN-2000; 2000US-0488725.

XX PR 25-APR-2000; 2000US-0552317.

SQ Sequence 29263 BP; 8278 A; 6037 C; 6053 G; 8895 T; 0 other;
Query Match 4.1%; Score 113; DB 23; Length 29263;
Best Local Similarity 58.0%; Pred. No. 1.3e-14;
Matches 200; Conservative 0; Mismatches 145; Indels 0; Gaps 0;
QY 1023 GACTCCTCAGGATCCGCTTGTACTACACAGCAAGCTGCGCGCTTCAACGCGGGATC 1082
DB 25413 GACAACTCCGGCTTTCGATCAAGATGTCGAAGACACTGCGTCAAGTATGAGCGCCCGT 25472
QY 1083 ATGGAGCTGGGACTGGTGTACACGCGCAGTGTGGCCATTCCACACGAGGAGCCCTTC 1142
DB 25473 ATGGAACTGGGCTGGTGTACACGCGCAGTGTGGCCATTCCGCGCAACCGCTTC 25532
QY 1143 ATCTCTCACTGGCTACTGACGCGACAAAGTGCACCCAGCTGGCACTCCCTCCGCGGATC 1202
DB 25533 CGCTGAGCGGCTATTGTGTGGCGACTGCACAGCGCGCTCTGCCGCGACGGGATC 25592
QY 1203 CACATCTTGGCTCTCAGTCTCACACACCTGACTGGGAGAAAGTGTGCACAGTGTG 1262
DB 25593 ATCATCTTTGGCTCTCAGTCTCATACGATCTCGCTGGCGTTCGCGTCTTAACCGCGAC 25652
QY 1263 GTCCGGGACGCGGAGTGGAGATCTGTGAACAGGACATCACTACAGCCCTCACTTC 1322
DB 25653 TTTCGCGGCGAACAGGAGTGGCGAGGTGAACCGCGATGACTACTCGAATCACTTC 25712
QY 1323 CAGGAGATCCGCTATTTGAAGAGTGTGTGCGGTCCATCCGGGA 1367
DB 25713 CAGGAGATCCGCTATTTGAAGAGTGTGTGCGGTCCATCCGGGA 25757

RESULT 35
AAC70713
ID AAC70713 standard; DNA; 121 BP.
XX
AC AAC70713;
XX
DT 09-FEB-2001 (first entry)
XX
DE Single nucleotide polymorphism containing sequence #181.
XX
KW Single nucleotide polymorphism; SNP; human; genetic disease;
KW disease susceptibility; cardiovascular system; endocrine system;
KW neurological system; forensic testing; paternity testing; ds.
XX
OS Homo sapiens.
XX
PN WO200058519-A2.
XX
PD 05-OCT-2000.
XX
PF 30-MAR-2000; 2000WO-US08440.
XX
PR 31-MAR-1999; 99US-0127248.
XX
PA (WHED) WHITEHEAD INST BIOMEDICAL RES.
XX (APFY-) AFFYMETRIX INC.
PI Alshuler D, Cargill M, Daley GO, Ireland JS, Lander ES;
PI Lipshutz RJ, Patil N, Sklar P;
XX
DR WPI; 2000-611722/58.
XX
PT Nucleic acid selected from one of 106 genes comprising single
PT nucleotide polymorphisms, allele-specific oligonucleotides to the genes
PT are useful for phenotypic correlations, forensics, paternity testing,
PT medicine and genetic analysis -
XX
PS Claim 1; Fig 5; 214pp; English.
XX
CC The present invention is concerned with a number of human single
CC nucleotide polymorphisms (SNPs) which the inventors identified in human
CC genes. These SNPs can be used in disease diagnosis and prediction of an

CC individual's susceptibility to disease, in forensic and paternity testing
CC and in genetic mapping. In particular, the SNPs of the invention can be
CC used to diagnose susceptibility to diseases of the cardiovascular,
CC endocrine and neurological systems, such as coronary artery disease,
CC schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's
CC diseases.
CC Note: The degenerate codon within the sequence represents the position
CC of an SNP, for example the letter S represents a polymorphism where the
CC nucleotide may be C or G.
XX
SQ Sequence 121 BP; 27 A; 39 C; 31 G; 23 T; 1 other;
Query Match 3.9%; Score 105.6; DB 21; Length 121;
Best Local Similarity 99.1%; Pred. No. 1.5e-13;
Matches 105; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 910 AGGCATTTTACTACCCAGAGGAGCGCGCTTGCCTTCGGGGTCCAGGTCCTCCAGAT 969
DB 8 AGGCATTTTACTACCCAGAGGAGCGCGCTTGCCTTCGGGGTCCAGGTCCTCCAGAT 67
QY 970 ATCTCCGCTGGAAGTTCACTACCAACACCCACTGGTGATAGAAGG 1015
DB 68 ATCTCCGCTGGAAGTTCACTACCAACACCCACTGGTGATAGAAGG 113
RESULT 36
AAX77118
ID AAX77118 standard; DNA; 1920 BP.
XX
AC AAX77118;
XX
DT 03-AUG-1999 (first entry)
XX
DE GS-GC6 fusion protein encoding DNA.
XX
KW Cellular senescence; modulator; GC6 gene; senescent gene expression;
KW pGC6; human; fusion protein; ss.
XX
OS Homo sapiens.
XX
PN WO9925878-A2.
XX
PD 27-MAY-1999.
XX
PF 19-NOV-1998; 98WO-US24996.
XX
PR 19-NOV-1997; 97US-0974180.
XX (GERO-) GERON CORP.
XX
PI Funk W;
XX
DR WPI; 1999-347496/29.
DR P-PSDB; AAY21557.
XX
PT New human GC6 gene, useful for identifying agents for treating
PT diseases and/or conditions associated with cell senescence
XX
PS Disclosure; Page 29-30; 79pp; English.
XX
CC The invention relates to methods for modulating and identifying cellular
CC senescence. Recombinant expression vectors comprising a recombinant
CC polynucleotide corresponding to a polynucleotide in a human GC6 gene, are
CC useful for altering senescent gene expression. The vectors and host cells
CC comprising the vectors are useful for identifying agents that prevent or
CC modulate senescent gene expression. The polynucleotides are useful for
CC producing the protein, pGC6 and nucleic acid derivatives. The proteins
CC encoded are useful for raising antibodies specific for pGC6, which are
CC useful for isolating pGC6, and for detecting cells comprising pGC6 in
CC complex cell mixtures. The characterization of the polynucleotides enable
CC the identification of therapeutic agents that identify and distinguish
CC between young and senescent cells. This enables treatment of aging
CC diseases induced or exacerbated by cellular senescence.

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XX SQ Sequence 1920 BP; 548 A; 393 C; 452 G; 527 T; 0 other;
Query Match 3.8%; Score 102.8; DB 20; Length 1920;
Best Local Similarity 50.2%; Pred. No. 1.2e-12;
Matches 282; Conservative 0; Mismatches 277; Indels 3; Gaps 1;

QY 629 CATGGAGGTCCTCAAGCTCCCAATATCCAGATCCCGAGGAGACCACTGCTGCTGA 688
Db 1253 CTTTGTCTGTTAAATCAGGAGCTCCCATCCCAACAAAGATACACATATTGGTGCCA 1312
QY 689 CATTAAAGAGCTTCCAAAGGGCTTCTCTCGGCACACATATCAAGTAACAGCCCATCGT 748
Db 1313 AATGTTTAAGATCTCTGTGTTCCAGAAAGCATCATGTAATAAGGTTGAGCGAGTAT 1372
QY 749 CACCAAGGCAATGAGGCGCTTGTCCACCATGGAAGTCTTCAGTGCCTCCCGCA--- 805
Db 1373 ACAGAGAGCCATGAGATCTGGGTGCACCATCTCTCTATCAGTGCAGCAACAATT 1432
QY 806 GATGACAGCTCCCGCACTTTCAGGGGCGCTGGGCGCTGGGTCGCAAGGCATTTTACTACCC 925
Db 1433 TAACGACAGCGTTCTGGAGTCCGCCACGAGTGTATCACCCCAACATGCCCGATGCAAT 1492
QY 866 CAATCTACTGCGCCACGCTGCTGGCGCGCTGGGCGCTGGGTCGCAAGGCATTTTACTACCC 925
Db 1493 CCTCACCTGTGAATCTGTGATTTTTCCTGGGCTATTTGGTGGAGAGGCTTTTCTTATCC 1552
QY 926 AGAGGAAGCGGCTTGCCTTCCGGGGTCCAGGCTCTCCAGATATCTCCGCTCGAAGT 985
Db 1553 ACCTCATGTTGGATTATCCCTTGGCACTCATTAGATCCGCATATGCTCTCTAGAAGT 1612
QY 986 TCATCTACCAACCCACTGTGTAGTAAGAGCAACGACTCCTCAGGCATCCGCTTCTGA 1045
Db 1613 CCATTATGATATCCCACTTATAGGAAGGCTTAATAGATAATTTCTGGACTGAGGTATT 1672
QY 1046 CTACACAGCAAGCTGGGCGCTTCAACGCGGGATCAAGGCTGGGACTGGTGTATCAC 1105
Db 1673 TTACACAAATGGAATAAGGAATATGATCTGGGGTGTATGAGGCTGGGCTCTGGGTGAG 1732
QY 1106 GCCAGTGATGGCCATTCACACGGGAGACCGGCTTCACTGCTACTGACGGA 1165
Db 1733 CTTCTTCATACATCCCTCCAGGATGCTGAGTTCAGTCTGAGGCTCACTGCACCTT 1792
QY 1166 CAACTGACCCAGCTGGCACTG 1187
Db 1793 GGAGTGCCTGGAAGAGGCTCTG 1814

RESULT 37
AAI61359/c
ID AAI61359 standard; cDNA; 2115 BP.
XX
AC AAI61359;
XX
DT 22-OCT-2001 (first entry)
XX
DE Human polynucleotide SEQ ID NO 5348.
XX
KW Human; nontropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW peripheral nervous system; neuropathy; central nervous system; CNS;
KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW leukaemia; ss.
XX
OS Homo sapiens.
XX
FN WO200153312-A1.
XX
PD 26-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-US34263.
XX

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PR 21-JAN-2000; 2000US-0488725.
PR 25-APR-2000; 2000US-0552317.
PR 09-JUL-2000; 2000US-0598042.
PR 19-JUL-2000; 2000US-0620312.
PR 03-AUG-2000; 2000US-0653450.
PR 14-SEP-2000; 2000US-0662191.
PR 19-OCT-2000; 2000US-0693036.
PR 29-NOV-2000; 2000US-0727344.
XX (HYSE-) HYSEQ INC.
XX Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J;
PI Zhao QA, Zhou P, Goodrich R, Drmanac RT;
XX WPI; 2001-442253/47.
DR P-FSDB; AAM42203.
XX
PT Novel nucleic acids and polypeptides, useful for treating disorders
XX such as central nervous system injuries -
PS Claim 1; SEQ ID NO 5348; 10078pp; English.
XX
CC The invention relates to human nucleic acids (AAI57798-AAI61369) and
CC the encoded polypeptides (AAM38642-AAM42213) with nontropic,
CC immunosuppressant and cytostatic activity. The polynucleotides are useful
CC in gene therapy. A composition containing a polypeptide or polynucleotide
CC of the invention may be used to treat diseases of the peripheral nervous
CC system, such as peripheral nervous injuries, peripheral neuropathy and
CC localised neuropathies and central nervous system diseases, such as
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC utilisation of the activity, chemotactic/chemokinetic activity, haemostatic
CC Activin/inhibin activity, cancer diagnosis and therapy, drug screening,
CC assays for receptor activity, arthritis and inflammation, leukaemias and
CC C.N.S disorders.
CC Note: The sequence data for this patent did not form part of the printed
CC specification.
XX
SQ Sequence 2115 BP; 694 A; 415 C; 427 G; 579 T; 0 other;
Query Match 3.3%; Score 90.4; DB 22; Length 2115;
Best Local Similarity 48.6%; Pred. No. 5.9e-10;
Matches 284; Conservative 0; Mismatches 291; Indels 9; Gaps 1;

QY 903 GGTGCCAAGGCATTTTACTACCCAGAGGAAGCGGCTTCCCTTCGGGGTCCAGGGTCC 962
Db 2115 GGGGAGAGGGCTTTTCTTATCCACCTCATGTTGGATTATCCCTTGGCACTCCATTAGAT 2056
QY 963 TCCAGATATCTCCGCTGGAGTTTCACTACCAACCCACTGGTGATAGAAGGACGAAAC 1022
Db 2055 CCGCATTAATGTCTCTAGAAAGTCCATTATGATAATCCCACTTATGAGGAAGCTTAATA 1996
QY 1023 GACTCCTCAGGCATTCGCTTGTACTACACAGCAAGCTGGCGCTTCAACGGGGGATC 1082
Db 1995 GATAAATCTGGACTGAGGTTATTTTACACATGATATAAGGAATATGATGCTGGGGTG 1936
QY 1083 ATGAGCTGGGACTGGTGTACACCCAGTATGGCCATTCCACCGGAGAGCCGCTTC 1142
Db 1935 ATTGAGCTGGGCTCTGGGTGAGCCTTTCCATACCATCCTCCAGGATGCTGAGTTC 1876
QY 1143 ATCCTCACTGGCTACTGACGAGCAAGTGCACCCAGCTGGCACTGCCTCCCT----- 1194
Db 1875 CAGTCTGAGGGTCACTGCACTTTGGAGTGCCTTGGAGAGGCTCTTGAAGCCGAAAGCCA 1816
QY 1195 -CGGGATCCACATCTTCGCTCTCAGCTCCACACACCTGACTGGGAGAAAGTGTGC 1253
Db 1815 AGTGGAAATTCATGTGTTGCTGTTCTTCTCCATGTCTACCTGGCTGGCAGAGGCATCAGG 1756
QY 1254 ACAGTGTGGTCCGGGACGGCGGGAGTGGGAGATCGTGAACCCAGGCAATCACTACAGC 1313
Db 1755 CTGCGCTCATTTTCGAAAGGGAAGGAATGAATTAATCTGCTATGATGATGATTTTGAC 1696

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QY 1314 CCTACTTCCAGGAGATCCGATGTTGAAGAAGTGGTGGTCCATCCGGAGATGTG 1373
DB |||||
DB 1695 TTCAATTTCCAGGAGTTTCAGTATCTTAAAGGAAGAACAACAATCTTACCAGGAGATAAC 1636
QY 1374 CTCATCACCTCTGCGAGTACACACGGAAGACCGGAGCTGGCCACAGTGGGGGCTTC 1433
DB |||||
DB 1635 CTAATTACTGAGTGTGCTGCTACACACGAAAGATAGAGCTGAGATGACTTGGGGAGGACTA 1576
QY 1434 GGGATCTCGGAGGAGATGTGTCAACTACGTGCACTACTACCC 1477
DB |||||
DB 1575 ASCACCAGGAGTGAATGTCTCTCATACCTTCTTTATTACCC 1532

RESULT 38

ABL09098
ID ABL09098 standard; cdna; 3483 BP.

AC ABL09098;

DT 26-MAR-2002 (first entry)

DE Drosophila melanogaster expressed polynucleotide SEQ ID NO 21776.

KW Drosophila; developmental biology; cell signalling; insecticide;

KW pharmaceutical; gene; se.

OS Drosophila melanogaster.

PN WO200171042-A2.

PD 27-SEP-2001.

PF 23-MAR-2001; 2001WO-US09231.

PR 23-MAR-2000; 2000US-191637P.

PR 11-JUL-2000; 2000US-0614150.

XX (PEKE) PE CORP NY.

XX Venter JC, Adams M, Li PWD, Myers EW;

XX WPI; 2001-656860/75.

DR P-PSDB; ABB64995.

PT New isolated nucleic acid detection reagent for detecting 1000 or more
PT genes from Drosophila and for elucidating cell signalling and cell-cell
PT interactions -

PS Claim 1; SEQ ID NO 21776; 21pp + Sequence Listing; English.

XX The invention relates to an isolated nucleic acid detection reagent
CC capable of detecting 1000 or more genes from Drosophila. The invention is
CC useful in developmental biology and in elucidating cell signalling and
CC cell-cell interactions in higher eukaryotes for the development of
CC insecticides, therapeutics and pharmaceutical drugs. The invention
CC discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
CC sequences (ABL01840-ABL16175) and the encoded proteins
CC (ABB57737-ABB72072).

CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.

XX Sequence 3483 BP; 1036 A; 726 C; 747 G; 974 T; 0 other;

XX Query Match 2.4%; Score 65.8; DB 23; Length 3483;

XX Best Local Similarity 45.5%; Pred. NO. 0.00015;

XX Matches 275; Conservative 0; Mismatches 327; Indels 3; Gaps 1;

QY 886 TGGCGCTGGCGCTGGGTCCAGGCAATTTACTACCCAGAGAGCGCGCTTGCT 945

DB 2088 TTGCAGTTTGGTCTTGGGATCTGATGACAGTTTCTACCTCCCGCAGGATCCAA 2147

QY 946 TCGGGGTCCAGGGTCTCCAGATATCTCCGCTCGAAGTTTCACTACCAACCCACTGG 1005
DB |||||
DB 2148 TGGCGGAGCATCTGGAGTTAGCTATTATATGCTGGAATACTACTAGATAATCCGATG 2207
QY 1006 TGATAGAGGACGAAACCACTCTCAGGCATCCGTTGTACTACACAGGCAAGCTGCGC 1065
DB |||||
DB 2208 GAAAGGAATCGGTGGATCACTCC---GGTTTCGAATACACTACACACCAATCTCGGAA 2264
QY 1066 GCTTCAACCGCGGGATCATGGAGCTGGGACTGGTGTACACGCCAGTGTGGCCATTCCAC 1125
DB |||||
DB 2265 CTAGGATTCGGAAATCTTAATAGTGGTGTTCATTTCCGAAACGCACTCATTTCCG 2324
QY 1126 CACGGAGACCGCCTTTCATCTCACTGCTACTGCAACGACAAAGTGCACCCAGCTGGCAC 1185
DB |||||
DB 2325 CTGGTCAAAAGAAAGTATCGATCCGTCGGCAATTTGTGGCGCTCTTTGTTCAAGCGTCATGT 2384
QY 1186 TGCCTCCCTCGGGATCCACATCTTCGCTCTCAGCTCCACACACCTGACTGGGAGAA 1245
DB |||||
DB 2385 TCCCAAAGGATGGTATTAAATAATATCCGAAACGTTGCACATCAAGCTGGTCGCA 2444
QY 1246 AGGTGGTCAACAGTCTGGTCCGGACGCGGGAGTGGGAGATCGTGAACACGAGCAATC 1305
DB |||||
DB 2445 CAATTAGTCTTCGACATGTTTCGATCTGTAAGGAGTTGAATCCGATCATTTGTGACGAA 2504
QY 1306 ACTACAGCCCTCACTTCCAGGAGATCCGCATGTTTGAAGAAGTGTGTCGTGCTCACTCGG 1365
DB |||||
DB 2505 ACTACGATTACAGGCACCAAAAGTCCATCAGCTTGCCCAATGMAACGGTCTGTTATGCGCAG 2564
QY 1366 GAGATGTGCTCATCACCTCTCGAGGTACACACGGAAGACGGGAGCTGGCCACAGTGG 1425
DB |||||
DB 2565 GGGATTACCTAAATTACAGACTGTTCTATGAGACAAAGTACAGAAACGACCCACATTCG 2624
QY 1426 GGGCTTCGGGATCTTGGAGGAGATGTTGTCAACTAGTCTACTACCCCGACAGCG 1485
DB |||||
DB 2625 GGGCTATTCCACGAGGAGGAATGTGTCTACCTTTATTACTTATTTACCCAAAGATTG 2684
QY 1486 AGCTG 1490
DB |||||
DB 2685 AGATG 2689

RESULT 39

AAC70728
ID AAC70728 standard; DNA; 74 BP.

AC AAC70728;

XX 09-FEB-2001 (first entry)

DE Single nucleotide polymorphism containing sequence #186.

XX Single nucleotide polymorphism; SNP; human; genetic disease;
KW disease susceptibility; cardiovascular system; endocrine system;
KW neurological system; forensic testing; paternity testing; ds.

OS Homo sapiens.

XX WO200058519-A2.

XX 05-OCT-2000.

XX 30-MAR-2000; 2000WO-US08440.

XX 31-MAR-1999; 99US-0127248.

XX (WHED) WHITEHEAD INST BIOMEDICAL RES.

XX (AFFY-) AFFYMETRIX INC.

PI Altschuler D, Cargill M, Daley GQ, Ireland JS, Lander ES;

PI Lipshutz RJ, Patil N, Sklar P;

XX WPI; 2000-611722/58.

XX

PT Nucleic acid selected from one of 106 genes comprising single
PT nucleotide polymorphisms, allele-specific oligonucleotides to the genes
PT are useful for phenotypic correlations, forensics, paternity testing,
XX medicine and genetic analysis -
PS Claim 1; Fig 5; 214pp; English.
XX
CC The present invention is concerned with a number of human single
CC nucleotide polymorphisms (SNPs) which the inventors identified in human
CC genes. These SNPs can be used in disease diagnosis and prediction of an
CC individual's susceptibility to disease, in forensic and paternity testing
CC and in genetic mapping. In particular, the SNPs of the invention can be
CC used to diagnose susceptibility to diseases of the cardiovascular,
CC endocrine and neurological systems, such as coronary artery disease,
CC schizophrenia, cancer, autoimmune diseases, Alzheimer's and Parkinson's
CC diseases.
CC Note: The degenerate codon within the sequence represents the position
CC of an SNP, for example the letter S represents a polymorphism where the
CC nucleotide may be C or G.
XX
SQ Sequence 74 BP; 18 A; 21 C; 20 G; 14 T; 1 other;

Query Match 2.3%; Score 63.8; DB 21; Length 74;
Best Local Similarity 94.2%; Pred. No. 0.00016;
Matches 65; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
QY 1357 TCATCCGGGAGATGCTCATCCTCTGACGTACACGAGACCGGAGCTGG 1416
DB 2 TTCTCAGGAGATGCTCATCCTCTGACGTACACGAGACCGGAGCTGG 61
QY 1417 CCACAGTGG 1425
DB 62 CCACAGTGG 70

RESULT 40
ABN42351
ID ABN42351 standard; DNA; 60 BP.
XX
AC ABN42351;
XX
DT 15-JUL-2002 (first entry)
XX
DE Human spliced transcript detection oligonucleotide SEQ ID NO:15099.
XX
KW Human; mouse; rat; splice transcript; detection; RNA transcript;
KW splice variant; transcriptome; oligonucleotide library; ss.
XX
OS Homo sapiens.
XX
PN WO200210449-A2.
XX
PD 07-FEB-2002.
XX
PF 20-JUL-2001; 2001WO-IB01903.
XX
PR 28-JUL-2000; 2000US-221607P.
PR 02-MAY-2001; 2001US-287724P.
XX
PA (COMP-) COMPUEN INC.
XX
PI Shoshan A, Wasserman A, Mintz E, Mintz L, Faigler S;
PI WPI; 2002-257383/30.
XX
DR
XX
PT New oligonucleotide libraries comprising oligonucleotides which
PT selectively hybridize to mRNAs transcribed from a transcription unit of
PT a genome, useful for detecting tissue-, pathology-, and
XX developmental-specific genes -
PS Example 1; SEQ ID 15099; 47pp; English.
XX
CC The present invention describes oligonucleotide libraries for detecting

messenger RNAs that populate a (sub-)transcriptome, where the
(sub-)transcriptome comprises messenger RNAs transcribed from multiple
transcription units that populate a genome. The library comprises
several oligonucleotides, each capable of hybridising selectively to a
set of messenger RNAs transcribed from a given transcription unit of
the genome, which encodes one or more messenger RNA splice variants.
The oligonucleotide libraries are useful for detecting mRNAs from a
biological sample, in expression profiling studies, in qualitatively or
quantitatively characterising the corresponding transcriptome, and in
detecting RNA transcripts and splice variants of human or animal
transcriptomes. The libraries may also be used as specialised mini
libraries to detect transcripts of a sub-transcriptome under a
particular biological or pathological state, and so allowing the
detection of tissue- and pathology-specific genes such as those genes
only expressed in specific tissue under a specific pathological
condition; to detect developmental specific genes; and to detect RNA
transcripts and splice variants of a transcriptome of a patient suffering
from a particular disorder. ABN27253 to ABN59589 represent
oligonucleotide sequences from rats, humans and mice, which are used in
the exemplification of the present invention.
N.B. The sequence data for this patent did not form part of the printed
specification, but was obtained in electronic format directly from WIPO
at ftp.wipo.int/pub/published_pct_sequences.

Sequence 60 BP; 21 A; 17 C; 13 G; 9 T; 0 other;
Query Match 2.2%; Score 60; DB 24; Length 60;
Best Local Similarity 100.0%; Pred. No. 0.001;
Matches 60; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2409 GATATTTTCGCCACCTAAAGGAGCCCTGACACACTATCACCACAAAGACGAGCGG 2468
DB 1 GATATTTTCGCCACCTAAAGGAGCCCTGACACACTATCACCACAAAGACGAGCGG 60

Search completed: November 12, 2003, 23:11:32
Job time : 702 secs

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